



Biometric Identity Assurance Services (BIAS) SOAP Profile, Version 1.0

Committee Specification Draft 0103

20 October 2009

23 February 2011

Specification URIs:

This Version:

<http://docs.oasis-open.org/bias/soap-profile/v1.0/csd03/biasprofile-4v1.0-ed-01.pdf>

(authoritative)

(Authoritative)

<http://docs.oasis-open.org/bias/soap-profile/v1.0/csd03/biasprofile-4v1.0-ed-01.doc>

<http://docs.oasis-open.org/bias/soap-profile/v1.0/csd03/biasprofile-4v1.0-ed-01.html>

Previous Version:

<http://docs.oasis-open.org/bias/soap-profile/v1.0/csd02/biasprofile-4v1.0-wd-07.pdf>

(Authoritative)

<http://docs.oasis-open.org/bias/soap-profile/v1.0/csd02/biasprofile-4v1.0-wd-07.doc>

<http://docs.oasis-open.org/bias/soap-profile/v1.0/csd02/biasprofile-4v1.0-wd-07.html>

Latest Version:

<http://docs.oasis-open.org/bias/soap-profile/v1.0/biasprofile-1.0.pdf>

(Authoritative)

<http://docs.oasis-open.org/bias/soap-profile/v1.0/biasprofile-1.0.doc>

<http://docs.oasis-open.org/bias/soap-profile/v1.0/biasprofile-1.0.html>

Technical Committee:

OASIS Biometric Identity Assurance Services (BIAS) Integration TC

Chair(s):

Cathy Tilton, Daon

Editor(s):

Matthew Swayze and

Cathy Tilton, Daon

Related Work:

This specification is related to:

- ANSI INCITS 442-2008, Biometric Identity Assurance Services (BIAS)

Declared XML Namespace(s):

<http://docs.oasis-open.org/bias/ns/bias-1.0/>

Abstract:

This document specifies a SOAP profile that implements the BIAS abstract operations specified in INCITS 442 as SOAP messages.

Style Definition: Heading 1, Char: Indent: Left: 0", Hanging: 0.25", Outline numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Tab after: 0.3" + Indent at: 0.3", Tab stops: 0.25", List tab + Not at 0.3"

Formatted: English (U.S.)

Formatted: English (U.S.)

Formatted: English (U.S.)

Formatted: English (U.S.)

Formatted: Default Paragraph Font, Underline color: Custom Color(RGB(0,56,168))

Field Code Changed

Formatted: Default Paragraph Font, Underline color: Custom Color(RGB(0,56,168))

Field Code Changed

Formatted: Default Paragraph Font

Formatted: apple-style-span, Underline color: Custom Color(RGB(0,56,168)), Font color: Black

Field Code Changed

Formatted: Hyperlink, Font color: Auto

Formatted: Default Paragraph Font

Field Code Changed

Formatted: Default Paragraph Font

Field Code Changed

Formatted: Default Paragraph Font

Field Code Changed

Formatted: Font color: Auto

Field Code Changed

Field Code Changed

Field Code Changed

Biasprofile-1.0-ed-01 20 October 2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

Page 1 of 200

Status:

This document was last revised or approved by the OASIS [Biometric Identity Assurance Services \(BIAS\) Integration](#) TC on the above date. The level of approval is also listed above. Check the "Latest ~~Version~~" or "~~Latest Approved~~ Version" location noted above for possible later revisions of this document.

Technical Committee members should send comments on this specification to the Technical Committee's email list. Others should send comments to the Technical Committee by using the "~~Send A Comment~~" "[Send A Comment](#)" button on the Technical Committee's web page at <http://www.oasis-open.org/committees/bias/>.

For information on whether any patents have been disclosed that may be essential to implementing this specification, and any offers of patent licensing terms, please refer to the Intellectual Property Rights section of the Technical Committee web page (<http://www.oasis-open.org/committees/bias/ipr.php>).

The non-normative errata page for Citation Format:

When referencing this specification ~~is located at~~ the following citation format should be used:

[BIAS SOAP PROFILE] *Biometric Identity Assurance Services (BIAS) SOAP Profile Version 1.0*, 23 February 2011. OASIS Committee Specification Draft, <http://www.docs.oasis-open.org/committees/bias/soap-profile/v1.0/csd03/biasprofile-v1.0-csd03.doc>.

Formatted: apple-style-span, Font color: Black

Formatted: apple-style-span, Font color: Black

Formatted: apple-style-span, Font color: Black

Field Code Changed

Notices

Copyright © OASIS® 2009-2011. All Rights Reserved.

All capitalized terms in the following text have the meanings assigned to them in the OASIS Intellectual Property Rights Policy (the "OASIS IPR Policy"). The full Policy may be found at the OASIS website.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published, and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this section are included on all such copies and derivative works. However, this document itself may not be modified in any way, including by removing the copyright notice or references to OASIS, except as needed for the purpose of developing any document or deliverable produced by an OASIS Technical Committee (in which case the rules applicable to copyrights, as set forth in the OASIS IPR Policy, must be followed) or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by OASIS or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and OASIS DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY OWNERSHIP RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

OASIS requests that any OASIS Party or any other party that believes it has patent claims that would necessarily be infringed by implementations of this OASIS Committee Specification or OASIS Standard, to notify OASIS TC Administrator and provide an indication of its willingness to grant patent licenses to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification.

OASIS invites any party to contact the OASIS TC Administrator if it is aware of a claim of ownership of any patent claims that would necessarily be infringed by implementations of this specification by a patent holder that is not willing to provide a license to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification. OASIS may include such claims on its website, but disclaims any obligation to do so.

OASIS takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Information on OASIS' procedures with respect to rights in any document or deliverable produced by an OASIS Technical Committee can be found on the OASIS website. Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this OASIS Committee Specification or OASIS Standard, can be obtained from the OASIS TC Administrator. OASIS makes no representation that any information or list of intellectual property rights will at any time be complete, or that any claims in such list are, in fact, Essential Claims.

The names "OASIS", and "BIAS" are trademarks of OASIS, the owner and developer of this specification, and should be used only to refer to the organization and its official outputs. OASIS welcomes reference to, and implementation and use of, specifications, while reserving the right to enforce its marks against misleading uses. Please see <http://www.oasis-open.org/who/trademark.php> for above guidance.

Table of Contents

1	Introduction	9
1.1	Purpose/Scope	9
1.2	Overview	9
1.3	Background	9
1.4	Relationship to Other Standards	10
1.5	Terminology	10
1.6	References	11
1.6.1	Normative References	11
1.6.2	Non-Normative References	12
2	Design Concepts and Architecture (non-normative)	14
2.1	Philosophy	14
2.2	Context	14
2.3	Architecture	15
3	Data dictionary	17
3.1	Documentation Conventions	17
3.2	Common Elements	18
3.2.1	ApplicationIdentifier	18
3.2.2	ApplicationUserIdentifier	18
3.2.3	BIASBiometricDataTypeBaseBIRType	18
3.2.4	BIASFaultCodeBIASBiometricDataType	18
3.2.5	BIASFaultDetailBIASFaultCode	19
3.2.6	BIASIdentityBIASFaultDetail	19
3.2.7	BIASIDTypeBIASIdentity	20
3.2.8	BiographicDataItemtypeBIASIDType	20
3.2.9	BiographicDataSetTypeBinaryBIR	21
3.2.10	BiographicDataTypeBiographicDataItemtype	21
3.2.11	BiometricDataElementtypeBiographicDataSetType	21
3.2.12	BiometricDataListTypeBiographicDataType	22
3.2.13	CandidateListTypeBiometricDataElementtype	23
3.2.14	CandidateTypeBiometricDataListType	23
3.2.15	CapabilityListTypeCandidateListResultType	24
3.2.16	CapabilityNameCandidateListType	24
3.2.17	CapabilityTypeCandidateType	24
3.2.18	CBEFF_BIR_ListTypeCapabilityListType	24
3.2.19	CBEFF_BIR_TypeCapabilityName	25
3.2.20	ClassificationCapabilityType	26
3.2.21	ClassificationAlgorithmTypeCBEFF_BIR_ListType	26
3.2.22	ClassificationDataCBEFF_BIR_Type	26
3.2.23	EncounterListTypeClassification	27
3.2.24	FusionInformationListTypeClassificationAlgorithmType	27
3.2.25	FusionInformationTypeClassificationData	28
3.2.26	GenericRequestParametersEncounterListType	28

5.8 Tailoring	6 Security	93
6	Error handling	93
	5.6.1 Use of SSL 3.0 or TLS 1.0	93
6.1 BIAS operation return codes	5.6.2 Data Origin Authentication	93
5.6.2 SOAP fault codes	3 Message Integrity	94
7	Conformance	94
	5.6.4 Message Confidentiality	94
Annex A. XML Schema	5.6.5 CBEFF BIR security features	94
Annex B. Use Cases (non-normative)	5.6.6 Security Considerations	94
B.1 Verification Use Case	5.6.7 Security of Stored Data	95
B.2 Asynchronous Verification	5.6.8 Key Management	95
B.3 Primitive Verification	5.7 Use with other WS* standards	95
B.4 Identification Use Case	5.8 Tailoring	95
B.5 Biometric Enrollment	Error handling	96
B.6 Primitive Enrollment	6.1 BIAS operation return codes	96
Annex C. Samples (non-normative)	6.2 SOAP fault codes	96
C.1 Create Subject Request/Response Example	Conformance	97
C.2 Set Biographic Data Request/Response Example	Annex A. XML Schema	98
C.3 Set Biometric Data Request/Response Example	Annex B. Use Cases (non-normative)	186
Annex D. Acknowledgements	B.1 Verification Use Case	186
Annex E. Revision History	B.2 Asynchronous Verification	187
B.3 Primitive Verification		188
B.4 Identification Use Case		189
B.5 Biometric Enrollment		191
B.6 Primitive Enrollment		192
Annex C. Samples (non-normative)		193
C.1 Create Subject Request/Response Example		193
C.2 Set Biographic Data Request/Response Example		195
C.3 Set Biometric Data Request/Response Example		196
Annex D. Acknowledgements		199

Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Formatted	...
Field Code Changed	...
Field Code Changed	...
Formatted	...
Field Code Changed	...

Annex E. Revision History.....	200
--	---------------------

1 Introduction

1.1 Purpose/Scope

This Organization for the Advancement of Structured Information Standards (OASIS) Biometric Identity Assurance Services (BIAS) profile specifies how to use the eXtensible Markup Language (XML) ~~XML 1.0~~XML 1.0 defined in ANSI INCITS 442-2008 – Biometric Identity Assurance Services ~~INCITS-~~BIAS~~INCITS-BIAS~~ to invoke Simple Object Access Protocol (SOAP) -based services that implement BIAS operations. These SOAP-based services enable an application to invoke biometric identity assurance operations remotely in a Services Oriented Architecture (SOA) infrastructure.

Not included in the scope of BIAS is the incorporation of biometric authentication as an integral component of an authentication or security protocol. (However, BIAS services may be leveraged to implement biometric authentication in the future.)

1.2 Overview

In addition to this introduction, this standard includes the following:

- Clause 2 presents the design concepts and architecture for invoking SOAP-based services that implement BIAS operations.
- Clause 3 presents the namespaces necessary to implement this profile, INCITS BIAS data elements, and identifies relationships to external data definitions.
- Clause 4 specifies the content of the BIAS messages.
- Clause 5 presents the BIAS message structure, as well as rules and considerations for its application.
- Clause 6 presents information on error handling.
- Clause ~~7~~specifies~~7~~ specifies conformance requirements.
- Annexes include the OASIS BIAS XML schema/sample Web Service Definition Language (WSDL), use cases, sample code, acknowledgements, and the revision history of this profile.

1.3 Background

In late 2005/early 2006, a gap was identified in the existing biometric standards portfolio with respect to biometric services. The Biometric Identity Assurance Services standard proposal was for a collaborative effort between government and private industry to provide a services-based framework for delivering identity assurance capabilities, allowing for platform and application independence. This standard proposal required the attention of two major technical disciplines: biometrics and service architectures. The expertise of both disciplines was required to ensure the standard was technically sound, market relevant, and achieved widespread adoption. The International Committee for Information Technology Standards (INCITS) M1 provided the standards leadership relevant to biometrics, defining the “taxonomy” of biometric operations and data elements. OASIS provided the standards leadership relevant to service architectures with an initial focus on web services, defining the schema and SOAP messaging.

The driving requirements of the BIAS standard proposal were to provide the ability to remotely invoke biometric operations across an SOA infrastructure; to provide business level operations without constraining the application/business logic that implements those operations; to be as generic as possible – technology, framework, & application domain independent; and to provide basic capabilities that can be used to construct higher level, aggregate/composite operations.

41 **1.4 Relationship to Other Standards**

42 This OASIS BIAS profile comprises a companion standard to ANSI INCITS 442-2008 – Biometric Identity
43 Assurance Services, which defines the BIAS requirements and taxonomy, specifying the identity
44 assurance operations and the associated data elements. This OASIS BIAS profile specifies the design
45 concepts and architecture, data model and data dictionary, message structure and rules, and error
46 handling necessary to invoke SOAP-based services that implement BIAS operations.
47 Together, the BIAS standard and the BIAS profile provide an open framework for deploying and remotely
48 invoking biometric-based identity assurance capabilities that can be readily accessed across an SOA
49 infrastructure.
50 This relationship allows the leveraging of the biometrics and web services expertise of the two standards
51 development organizations. Existing standards are available in both domains and many of these
52 standards will provide the foundation and underlying capabilities upon which the biometric services
53 depend.

54 **1.5 Terminology**

55 The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD
56 NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described
57 in [\[RFC2119\]](#).

58 The following additional terms and definitions are used:
59 Note: The terms and definitions specified in INCITS (InterNational Committee for Information Technology
60 Standards) (Project 1823-D) also apply to this Standard.

61 BIAS operation and data element names are not defined here, but in their respective sections.

- 62 **BIAS**
- 63 Biometric Identity Assurance Services
- 64 **BIR**
- 65 Biometric Information Record
- 66 **ESB**
- 67 Enterprise Service Bus
- 68 **HTTP**
- 69 HyperText Transfer Protocol
- 70 **HTTPS**
- 71 HyperText Transfer Protocol over SSL or HTTP Secure
- 72 **IRI**
- 73 Internationalized Resource Identifier
- 74 **SOA**
- 75 Service-Oriented Architecture
- 76 **SOAP**
- 77 Simple Object Access Protocol
- 78 **SSL**
- 79 Secure Sockets Layer
- 80 **TLS**
- 81 Transport Layer Security
- 82 **UDDI**
- 83 Universal Description, Discovery, and Integration
- 84 **URI**
- 85 Uniform Resource Identifier
- 86 **VPN**
- 87 Virtual Private Network
- 88 **WSDL**
- 89 Web Services Description Language
- 90 **WSS**

Formatted: Font: Bold

93 Web Services Security
94 | **XML**
95 eXtensible Markup Language
96
97
98 **CBEFF**
99 Common Biometric Exchange Formats Framework - data elements and BIR formats specified in
100 ISO/IEC 19785-1
101 **BIAS implementation**
102 software entity that is capable of creating, processing, sending, and receiving BIAS messages
103 **BIAS endpoint**
104 runtime entity, identified by an endpoint URI/IRI, capable of sending and receiving BIAS
105 messages, and containing a running BIAS implementation
106 **BIAS message**
107 message that can be sent from a BIAS endpoint to another BIAS endpoint through a BIAS link
108 channel
109 **BIAS request message**
110 BIAS message conveying a request for an action to be performed by the receiving BIAS endpoint
111 **BIAS response message**
112 BIAS message conveying a response to a prior BIAS requestmessage

113 **1.6 References**

114 **1.6.1 Normative References**

115 **[RFC2119]** S. Bradner, *Key words for use in RFCs to Indicate Requirement Levels*, IETF
116 RFC 2119, March 1997.
117 <http://www.ietf.org/rfc/rfc2119.txt>
118
119 | **[CBEFF]** ISO/~~IEC 19785~~**IEC19785**, Information technology – Common Biometric
120 Exchange Formats Framework – Part 1: Data element specification & Part 3:
121 Patron format specifications
122 | <http://www.iso.org>
123
124 **[DATE-TIME]** ISO 8601:2004, Data elements and interchange formats — Information
125 interchange — Representation of dates and times
126 | <http://www.iso.org>
127
128 **[INCITS-BIAS]** ANSI INCITS 442-~~2008~~**2010**, Biometric Identity Assurance Services (BIAS), ~~May~~
129 ~~2008~~**July 2010**
130 <http://www.incits.org>
131
132 **[IRI]** M. Duerst, et al, Internationalized Resouce Identifiers, W3C RFC3987, January
133 2005
134 | <http://www.ietf.org/rfc/rfc3987.txt>
135 | **[SOAP11]-** Simple Object Access Protocol (SOAP) 1.1, 8 May 2000
136 <http://www.w3.org/TR/2000/NOTE-SOAP-20000508/>
137 | **[URI]-** T. Berners-Lee, R. Fielding, L. Masinter, *Uniform Resource Identifiers (URI):*
138 *Generic Syntax*, RFC 3986, MIT/LCS, U.C. Irvine, Xerox Corporation, January

Formatted: Underline color: Auto

Field Code Changed

Formatted: Underline color: Auto

Field Code Changed

Formatted: English (U.S.)

Formatted: Default Paragraph Font

Formatted: English (U.S.)

Field Code Changed

Field Code Changed

139		2005.
140		http://ietf.org/rfc/rfc3986 http://ietf.org/rfc/rfc3986
141	[UTF-8]	ISO/IEC 10646:2003, Information technology — Universal Multiple-Octet Coded
142		Character Set (UCS)
143		http://www.iso.org
144		http://www.iso.org
145	[WS-Addr]	W3C Recommendation, Web Services Addressing 1.0 - Core, and Web
146		Services Addressing 1.0 - SOAP Binding, 9 May 2006
147		http://www.w3.org/2002/ws/addr/ http://www.w3.org/2002/ws/addr/
148	[WS-I-Basic]	Basic Profile Version 1.1, 10 April 2006
149		http://www.ws-i.org/Profiles/BasicProfile-1.1-2006-04-10.html
150	[WS-I-Bind]	Web Services-Interoperability Organization (WS-I) Simple SOAP Binding Profile
151		Version 1.0, 24 August 2004
152		http://www.ws-i.org/Profiles/SimpleSoapBindingProfile-1.0-2004-08-24.html
153	[WSDL11]	Web Services Description Language (WSDL) 1.1, 15 March 2001
154		http://www.w3.org/TR/2001/NOTE-wsdl-20010315
155	[XML 10]	Extensible Markup Language (XML) 1.0, 16 August 2006
156		http://www.w3.org/TR/2006/REC-xml-20060816/
157	[XOP]	XML-binary Optimized Packaging, W3C Recommendation, 25 January 2005
158		http://www.w3.org/TR/2005/REC-xop10-20050125/

Field Code Changed

Field Code Changed

Field Code Changed

Field Code Changed

Field Code Changed

1.6.2 Non-Normative References

160	[BioAPI]	ISO/IEC 19784-1:2006, Information technology – Biometric Application
161		Programming Interface – Part 1: BioAPI Specification
162		http://www.iso.org http://www.iso.org
163	[BIO SEC]	ISO 19092 Financial services -- Biometrics -- Security framework
164		http://www.iso.org
165	[EBTS-DOD]	Department of Defense Electronic Defense Electronic Biometric Transmission
166		Specification Transmission Specification , Version 2.0, -27 March 2009
167		http://www.biometrics.dod.mil/CurrentInitiatives/Standards/EBTSdodebts.aspx
168	[EBTS-FBI]	IAFIS-DOC-01078-8.1, "Electronic Biometric Transmission Specification
169		(EBTS)", Version 8.1, November 19, 2008, Federal Bureau of Investigation,
170		Criminal Justice Information Services Division
171		http:// https://www.fbi biospecs.org
172	[EFTS]	IAFIS-DOC-01078-7, "Electronic Fingerprint Transmission Specification (EFTS)",
173		Version 7.1, May 2, 2005, Federal Bureau of Investigation, Criminal Justice
174		Information Services Division
175		http:// https://www.fbi biospecs.org
176	[HR-XML]	HR-XML Consortium Library, 2007 April 15
177		http://www.hr-xml.org

Formatted: English (U.S.)

Formatted: Font color: Auto, German (Germany)

Field Code Changed

Formatted: Default Paragraph Font, Font color: Black

Field Code Changed

Formatted: English (U.S.)

Formatted: Default Paragraph Font, Underline color: Custom Color(RGB(0,56,168)), Font color: Black

Field Code Changed

Formatted: English (U.S.)

Formatted: Default Paragraph Font, Underline color: Custom Color(RGB(0,56,168)), Font color: Black

Field Code Changed

Formatted: English (U.S.)

Formatted: Default Paragraph Font, Font color: Black

Field Code Changed

Formatted: English (U.S.)

Biasprofile-1.0-cd-01 20 October 2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

178	[INT-I]	Interpol Implementation of ANSI/NIST ITL1-2000, Ver 4.22b, October 28, 2005,
179		The Interpol AFIS Expert Group
180		http://www.interpol.int
181	[NIEM]	National Information Exchange Model (NIEM), Ver 2.0, June 2007, US DOJ/DHS
182		http://www.niem.gov
183	[RFC2246]	T. Dierks & C. Allen, <i>The TLS Protocol, Version 1.0</i> , January 1999
184		http://www.ietf.org/rfc/rfc2246.txt
185	[RFC2617]	J. Franks, et al, <i>HTTP Authentication: Basic and Digest Access Authentication</i> ,
186		June 1999
187		http://www.ietf.org/rfc/rfc2617.txt http://www.ietf.org/rfc/rfc2617.txt
188	[RFC3280]	R. Housley, et al, Internet X.509 Public Key Infrastructure Certificate and
189		Certificate Revocation List (CRL) Profile, April 2002
190		http://www.ietf.org/rfc/rfc3280.txt
191	[SAML]	OASIS Standard , Security Assertion Markup Language (SAML) 2.0 , Oasis
192		Standard , March 2005
193		http://docs.oasis-open.org/security/saml/v2.0/saml-core-2.0-os.pdf
194		http://docs.oasis-open.org/security/saml/v2.0/saml-core-2.0-os.pdf
195	[SAML SEC]	OASIS Standard , Security and Privacy Considerations for the OASIS Security
196		Assertion Markup Language (SAML) V2.0, Oasis Standard , 15 March 2005
197		http://docs.oasis-open.org/security/saml/v2.0/saml-sec-consider-2.0-os.pdf
198		http://docs.oasis-open.org/security/saml/v2.0/saml-sec-consider-2.0-os.pdf
199	[SSL3]	SSL 3.0 Specification
200		http://www.freessoft.org/CIE/Topics/ssl-draft/3-
201		SPEC.HTM http://www.freessoft.org/CIE/Topics/ssl-draft/3-SPEC.HTM
202	[WSS]	OASIS Standard , Web Services Security: SOAP Message Security 1.1, (WS-
203		Security 2004), OASIS Standard Specification , 1 February 2006
204		http://www.oasis-open.org/committees/download.php/16790/wss-v1.1-spec-os-
205		SOAPMessageSecurity.pdf http://www.oasis-
206		open.org/committees/download.php/16790/wss-v1.1-spec-os-
207		SOAPMessageSecurity.pdf
208	[X509]	X.509: Information technology - Open Systems Interconnection - The Directory:
209		Public-key and attribute certificate frameworks, ITU-T, August 2005
210		http://www.itu.int/rec/T-REC-X.509-200508-1
211	[xNAL]	OASIS Committee Specification 02 , Customer Information Quality Specifications
212		Version 3.0: Name (xNL), Address (xAL), Name and Address (xNAL) and Party
213		(xPIL), Committee Specification 02 , 20 September 2008
214		http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=cig#download
215		
216		http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=cig
217		

Formatted: Default Paragraph Font, Font color: Black

Field Code Changed

Formatted: German (Germany)

Formatted: Default Paragraph Font, Underline color: Custom Color(RGB(0,56,168)), Font color: Black

Field Code Changed

Formatted: German (Germany)

Formatted: German (Germany)

Formatted: German (Germany)

Formatted: Default Paragraph Font, Font color: Black

Field Code Changed

Field Code Changed

2 Design Concepts and Architecture (non-normative)

2.1 Philosophy

Rather than define a totally new and unique messaging protocol for biometric services, this specification instead defines a method for using existing biometric and Web services standards to exchange biometric data and perform biometric operations.

2.2 Context

Today, biometric systems are being developed which collect, process, store and match biometric data for a variety of purposes. In many cases, data and/or capabilities need to be shared between systems or systems serve a number of different client stakeholders. As architectures move towards services-based frameworks, access to these biometric databases and services is via a Web services front-end. However, lack of standardization in this area has led implementers to develop customized services for each system/application.

BIAS is intended to provide a common, yet flexible, Web services interface that can be used within both closed and open SOA systems. Figure 1, below, depicts the context in which the BIAS messages will be implemented.

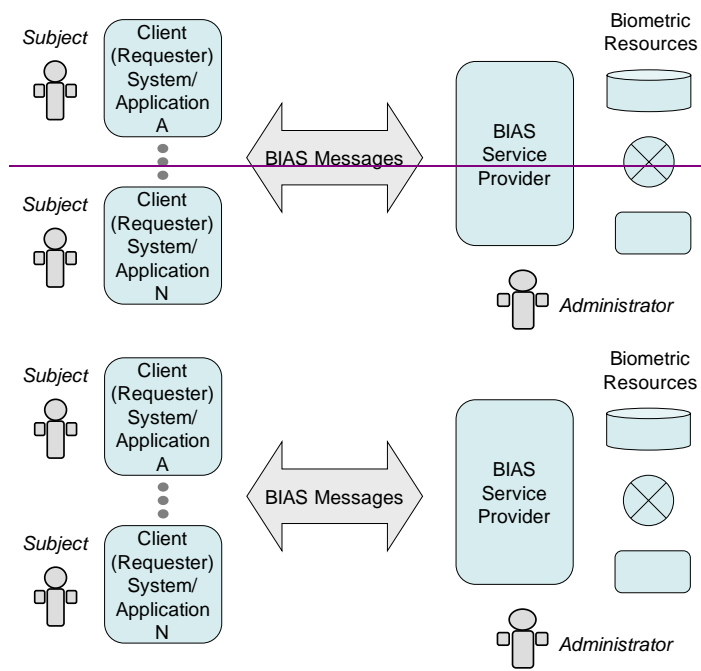


Figure 1. BIAS Context

239
240
241
242

243
244
245
246
247
248
249
250
251
252
253
254
255
256
257

The clients (requesters) may use standard discovery mechanisms (i.e., UDDI directories) to discover the BIAS service provider (implementation) or, particularly in closed systems, the URI/IRI and WSDL for the service provider may be known *a priori* by the client BIAS application developer.

2.3 Architecture

BIAS Web services are intended to be used within systems employing a services framework, such as a services-oriented architecture (SOA) (although implementations are not limited to this environment). As such, it is recognized that the clients may interact directly with the BIAS service provider or layers may exist between the client and the service provider, for example as an ESB or other application layer.

The BIAS Architecture as shown in Figure 2, in which:

- A Client request to the BIAS Web services may be triggered by a human interaction OR any proxy system such as an ESB.
- Client sends and receives SOAP messages that conform to the BIAS schemas
- The calls to the BIAS Implementation use OASIS Service Interfaces and Bindings (via WSDL)
- The BIAS implementation maps the service call to the appropriate internal API or set of APIs and returns data according to the service interface.

Note that services are represented as circles.

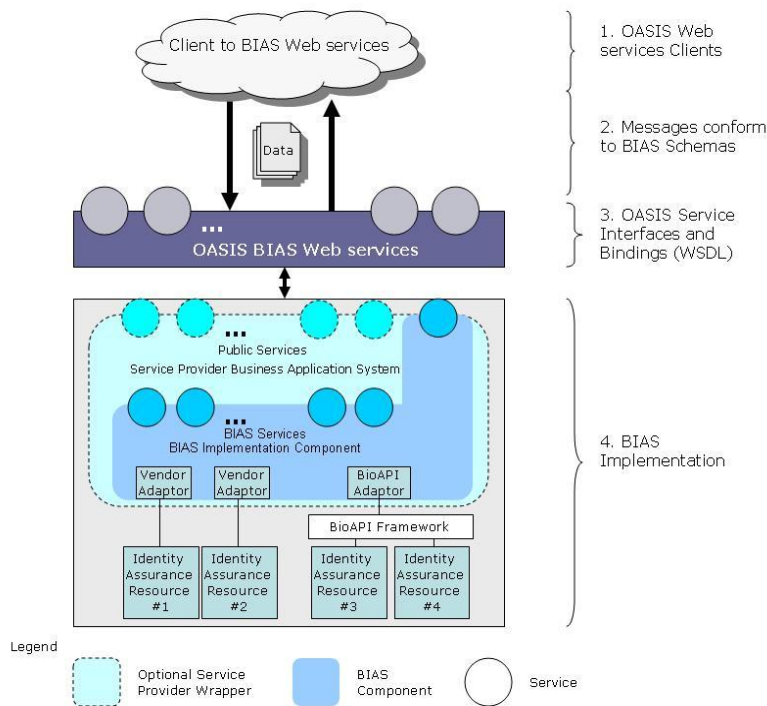


Figure 2. Representative BIAS Architecture

261

262 NOTE: It is possible that BIAS may also be used between the service provider and the managed

263 resource (e.g., a biometric matcher).

264

265 At the heart of the BIAS messaging protocol are the concepts of BIAS messages and endpoints.

266 **BIAS implementation**

267 A BIAS implementation is a software entity that is capable of creating, processing, sending, and receiving

268 BIAS messages. This standard does not define requirements for the BIAS implementation other than

269 defining the messages and protocols used by the endpoints.

270 **BIAS messages**

271 A BIAS message is a one that can be sent from a BIAS endpoint to another BIAS endpoint over a TCP/IP

272 link.

273 **BIAS endpoints**

274 A BIAS endpoint is a runtime entity, uniquely identified and accessed by an endpoint URI/IRI ~~{URI}~~

275 ~~{IRI}~~[URI][IRI], capable of sending and receiving BIAS messages.

276 Note that when not publicly and directly exposed, the endpoints for purposes of this specification are the

277 BIAS service provider exposing BIAS services and the component that directly interacts with that service

278 provider, e.g., the business application or ESB, rather than the ultimate end client requester.

3 Data dictionary

This section describes the BIAS data elements used within BIAS messages (as defined in Clause 4). Common data elements are defined for use in one or more operations. These include common data types or return codes. BIAS data elements are defined in ANSI INCITS 442-20082010. The elements, complex types and simple types described for the BIAS messages belong to the following namespace: <http://docs.oasis-open.org/bias/ns/bias-1.0/>. See Annex A for the XML schema.

NOTE: Biographic and biometric data included in a native XML format MAY contain elements referencing external namespaces (e.g., ansi-nist).

3.1 Documentation Conventions

Each common element has a section describing its content. Likewise, each operation has a section describing the request and response messages and the associated input and output parameters. The input and output of each message and the comment elements are detailed in a table as described in the figure below. Each field that forms part of the message request/response is detailed in the table.

Header Name	Description	Values	Value Meaning
Field	The name of the field.		
Type	The XML schema type of the field.		
#	The cardinality of the field	1	One occurrence
		0..1	Zero or one occurrence
		0..*	Zero or more occurrences
		1..*	One or more occurrences
?	Defines if the field must be present.	Y	Yes – is always required
		N	No – is not always required, an optional field.
		C	Conditional – requirement is dependent on system or message conditions.
Meaning	Gives a short description of the field's use		

Figure 3. BIAS Message Input/Output Dictionary Table Headings

Fields Hierarchy Explained:

To denote the field hierarchy the symbol ↑ is used to denote the child-of relationship.

All string types/elements MUST consist of ISO/IEC 10646 (Unicode) characters encoded in UTF-8 [UTF-8] (see ISO/IEC 10646:2003, Annex D).

Formatted: Space Before: 12 pt

3.2 Common Elements

3.2.1 ApplicationIdentifier

Type:	string
Description:	Identifies an application.
Min Length:	1
Max Length:	255






3.2.2 ApplicationUserIdentifier

Type:	string
Description:	Identifies an application user or instance.
Min Length:	1
Max Length:	255

3.2.3 BaseBIRType

Type:	Schema complexType
Description:	Base type for all BIR subtypes; see BinaryBIR, URI_BIR, and XML_BIR for currently available types.

~~3.2.3~~3.2.4 BIASBiometricDataType

Field	Type	#	?	Meaning
BIASBiometricDataType			Y	Wraps the various BIAS biometric types. The operations that use this type specify which elements are required.
 BIRList	CBEFF_BIR_ListType CBEFF_BIR_ListType	0..1	N	A list of CBEFF-BIR elements.
 BIR	CBEFF_BIR_TypeCB EFF_BIR_Type	0..1	N	Contains biometric information in either a non-XML or an XML representation.
 InputBIR	CBEFF_BIR_TypeCB EFF_BIR_Type	0..1	N	Maps to specific INCITS BIAS elements as required by that specification.
 ReferenceBIR	CBEFF_BIR_TypeCB EFF_BIR_Type	0..1	N	Maps to specific INCITS BIAS elements as required by that specification.
 BiometricDataList	BiometricDataListType BiometricDataListType	0..1	N	A list of biometric data elements.

304 **3.2.43.2.5 BIASFaultCode**

Type:	String
Description:	Error code referenced in a SOAP fault.

305 **BIASFaultCode Enumeration Values**

Value	Description
UNKNOWN_ERROR	The service failed for an unknown reason.
UNSUPPORTED_CAPABILITY	A requested capability is not supported by the service implementation.
INVALID_INPUT	The data in a service input parameter is invalid.
BIR_QUALITY_ERROR	Biometric sample quality is too poor for the service to succeed.
INVALID_BIR	The input BIR is empty or in an invalid or unrecognized format.
BIR_SIGNATURE_FAILURE	The service could not validate the signature, if used, on the input BIR.
BIR_DECRYPTION_FAILURE	The service could not decrypt an encrypted input BIR.
INVALID_ENCOUNTER_ID	The input encounter ID is empty or in an invalid format.
INVALID_SUBJECT_ID	The input subject ID is empty or in an invalid format.
UNKNOWN_SUBJECT	The subject referenced by the input subject ID does not exist.
UNKNOWN_GALLERY	The gallery referenced by the input gallery ID does not exist.
UNKNOWN_ENCOUNTER	The encounter referenced by the input encounter ID does not exist.
UNKNOWN_BIOGRAPHIC_FORMAT	The biographic data format is not known or not supported.
UNKNOWN_IDENTITY_CLAIM	The identity referenced by the input identity claim does not exist.
INVALID_IDENTITY_CLAIM	The identity claim requested is already in use.
NONEXISTANT_DATA	The data requested for deletion does not exist.

306 NOTES:

- 307 (1) See Clause 6 (Error handling) for an explanation of BIAS faults and return codes.
308 (2) Service provider MAY define additional values specific to their service implementation.
309 (3) See section 5.5 for additional information on BIAS security.

310 **3.2.53.2.6 BIASFaultDetail**

Field	Type	#	?	Meaning
BIASFaultDetail			Y	Defines the error information associated with a SOAP fault.
↑ BIASFaultType	BIASFaultCode	1	Y	References an error code.

Field	Type	#	?	Meaning
↑ BIASFaultMessage	string	1	Y	Provides a brief explanation of the fault.
↑ BIASFaultDescription	string	0..1	N	Provides detailed information about a BIAS fault, such as trace details.

311 3.2.63.2.7 BIASIdentity

Field	Type	#	?	Meaning
BIASIdentity			Y	Defines a single element for encapsulating the data associated with an Identity. Includes the Identity's reference identifiers, biographic data, and biometric data. The operations that use this type specify which elements are required.
↑ SubjectID	BIASIDType BIASIDType	0..1	C	A system unique identifier for a subject. Required as input to many operations.
↑ IdentityClaim	BIASIDType BIASIDType	0..1	N	An identifier by which a subject is known to a particular gallery or population group.
↑ EncounterID	BIASIDType BIASIDType	0..1	C	The identifier of an encounter associated with the subject. Required for encounter-centric models.
↑ EncounterList	EncounterListType EncounterListType	0..1	N	A list of encounters associated with a subject.
↑ BiographicData	BiographicDataType BiographicDataType	0..1	N	An Identity's biographic data.
↑ BiographicDataElements	BiographicDataType BiographicDataType	0..1	N	An Identity's biographic data elements that are stored in the implementing system.
↑ BiometricData	BIASBiometricDataType BIASBiometricDataType	0..1	N	An Identity's biometric data.

312 3.2.73.2.8 BIASIDType

Type:	string
Description:	A BIAS Identifier.

3.2.9 BinaryBIR

Field	Type	#	?	Meaning
BinaryBIR	BaseBIRType		Y	Defines a BIR type of Binary
↑ Binary	base64Binary	1	Y	BIR information in base64 binary format

3.2.9.3.2.10 BiographicDataItem Type

Field	Type	#	?	Meaning
BiographicDataItem Type			Y	Defines a single biographic data element.
↑ Name	string	1	Y	The name of the biographic data item.
↑ Type	string	1	Y	The data type for the biographic data item.
↑ Value	string	0..1	N	The value assigned to the biographic data item.

NOTE: This element can be used to transmit scanned identity documents or document information (e.g., passports, driver's license, birth certificates, utility bills, etc. required to establish an identity).

3.2.9.3.2.11 BiographicDataSetType

Field	Type	#	?	Meaning
BiographicDataSetType			Y	Defines a set of biographic data that is formatted according to the specified format.
↑ name	string	1	Y	The name of the biographic data format. Use these names for common formats: FBI-EFTS [EFTS], FBI-EBTS [EBTS-FBI], DOD-EBTS [EBTS-DOD], INT-I [INT-I], NIEM [NIEM], xNAL [xNAL], HR-XML [HR-XML].
↑ version	string	0..1	N	The version of the biographic data format (e.g., "7.1" for FBI-EFTS or "2.0" for NIEM).
↑ source	string	1	Y	Reference to a URI/IRI describing the biographic data format. For example: (FBI-EFTS and FBI-EBTS) www.fbi-biospecs.org , (DOD-EBTS) www.biometrics.dod.mil , (INT-I) www.interpol.int , (NIEM) www.niem.gov , (xNAL) www.oasis-open.org , (HR-XML) www.hr-xml.org .
↑ type	string	1	Y	The biographic data format type. Use these types for common formats: ASCII (e.g., for non-XML versions of FBI-EFTS, FBI-EBTS, DOD-EBTS, or INT-I), XML (e.g., for NIEM, xNAL, and HR-XML or future versions of FBI-EBTS).
↑ unspecified	any	0..*	N	Biographic data formatted according to a specific format.

Formatted Table

Formatted: Font: Not Bold

Formatted: Font: Not Bold, Font color: Custom Color(0,0,204)

Formatted Table

319




BiographicDataSetType Attributes

Name	Type	Use	Meaning
name	string	REQUIRED	The name of the biographic data format. Use these names for common formats: FBI-EFTS [EFTS], FBI-EBTS [EBTS-FBI], DOD-EBTS [EBTS-DOD], INT-I [INT-I], NIEM [NIEM], xNAL [xNAL], HR-XML [HR-XML].
version	string	OPTIONAL	The version of the biographic data format (e.g., "7.1" for FBI-EFTS or "2.0" for NIEM).
source	string	REQUIRED	Reference to a URI/IRI describing the biographic data format. For example: (FBI-EFTS and FBI-EBTS) www.fbi.biospecs.org, (DOD-EBTS) www.biometrics.dod.mil, (INT-I) www.interpol.int, (NIEM) www.niem.gov, (xNAL) www.oasis-open.org, (HR-XML) www.hr-xml.org.
type	string	REQUIRED	The biographic data format type. Use these types for common formats: ASCII (e.g., for non-XML versions of FBI-EFTS, FBI-EBTS, DOD-EBTS, or INT-I), XML (e.g., for NIEM, xNAL, and HR-XML or future versions of FBI-EBTS).

320
321
322
323
324

NOTE: Biographic data formats are not limited to those listed. The string value is not enumerated. If one of the common types are used, it MUST be indicated by the specified name values; however, the service provider MAY offer other formats. See INCITS 442 for further information.

3.2.103.2.12 BiographicDataType

Field	Type	#	?	Meaning
BiographicDataType			Y	Defines a set of biographic data elements, utilizing either the BiographicDataItem or the BiographicDataSet to represent a complete, formatted set of biographic information. One of the following elements must be present.
↑ LastName	string	0..1	 N	The last name of a subject.
↑ FirstName	string	0..1	 N	The first name of a subject.
↑ BiographicDataItems	BiographicDataItem	0..1	N	A list of biographic data elements.
↑ BiographicDataItem	BiographicDataItem	0..*	 N	A single biographic data element.

Field	Type	#	?	Meaning
↑ Biographic DataSet	BiographicDataSetType Biographic DataSetType	0.. 1	C N	A set of biographic data information.

NOTE: The implementer is given three choices for encoding biographic data:

- Encode only first and last name using the defined fields within BiographicDataType
- Define a list of biographic data elements using the BiographicDataItemtype
- Use a pre-defined set of biographic data (e.g., as specified in another standard) using the BiographicDataSetType.

See also INCITS 442, section 8.1 for further information.

3.2.13 BiometricDataElementtype

Field	Type	#	?	Meaning
BiometricDataElementtype			Y	Provides descriptive information about biometric data, such as the biometric type, subtype, and format, contained in the BDB of the CBEFF-BIR.
↑ BiometricType	iso-iec19785-3-7: Multiple- typesMultipleTypesType	1	Y	The type of biological or behavioral data stored in the biometric record, as defined by CBEFF.
↑ BiometricTypeCount	positiveInteger	0..1	N	The number of biometric records having the biometric type recorded in the biometric type field.
↑ BiometricSubType	iso-iec19785-3-7: Subtype SubtypeType	0..1	N	More specifically defines the type of biometric data stored in the biometric record, as defined by CBEFF.
↑ BDBFormatOwner	iso-iec19785-3-7: Registered- int positiveInteger	1	Y	Identifies the standards body, working group, industry consortium, or other CBEFF biometric organization that has defined the format for the biometric data.
↑ BDBFormatType	iso-iec19785-3-7: Registered- int positiveInteger	1	Y	Identifies the specific biometric data format specified by the CBEFF biometric organization recorded in the BDB Format Owner field.

NOTE: XML biometric metadata (BIR header elements) is aligned with ISO/IEC 19785-3, XML Patron Format. ~~[CBEFF]~~[CBEFF]

3.2.14 BiometricDataListType

Field	Type	#	?	Meaning
BiometricDataListType			Y	A list of biometric data elements.

Field	Type	#	?	Meaning
↑ BiometricDataElement	BiometricDataElementType	0..*	N	Data structure containing information about a biometric record.

3.2.13 CandidateListType

3.2.15 CandidateListResultType

Field	Type	#	?	Meaning
CandidateListTypeCandidateListResultType			Y	Defines a set of candidates, utilizing the CandidateTypeCandidateType to represent each element in the set.
↑ CandidateCandidateList	CandidateListType	0..* 1	N Y	A singleThe candidate list.

Formatted Table

Formatted: Underline, Font color: Blue

Field Code Changed

3.2.16 CandidateListType

Field	Type	#	?	Meaning
CandidateListType			Y	Defines a set of candidates, utilizing the CandidateType to represent each element in the set.
↑ Candidate	CandidateType	0..*	N	A single candidate.

3.2.143.2.17 CandidateType

Field	Type	#	?	Meaning
CandidateType			Y	Defines a single candidate as a possible match in response to a biometric identification request.
↑ Score	ScoreScore	0..1	N	The match score.
↑ Rank	integer	1	Y	The rank of the candidate in relation to other candidates for the same biometric identification operation.
↑ BiographicData	BiographicDataTypeBiographicDataType	0..1	N	Biographic data associated with the candidate match.
↑ BIRList	CBEFF_BIR_ListTypeCBEFF_BIR_ListType	1	Y	Biometric data associated with the candidate match.

CandidateType Attributes

Name	Type	Use	Meaning
------	------	-----	---------

Name	Type	Use	Meaning
rank	integer	REQUIRED	The rank of the candidate in relation to other candidates for the same biometric identification operation.

342 3.2.153.2.18 CapabilityListType

Field	Type	#	?	Meaning
CapabilityListType			Y	Defines a set of capabilities.
↑ Capability	CapabilityType	0..*	N	A single capability.

343 3.2.163.2.19 CapabilityName

Type:	string
Description:	A list of capability items.

344 CapabilityName Enumeration Values

Value	Description
AggregateInputDataOptional	A data element accepted as optional input by the implementing system for the aggregate services.
AggregateInputDataRequired	A data element required as input by the implementing system for the aggregate services.
AggregateProcessingOption	A processing option supported by the implementing system for the aggregate services.
AggregateReturnData	A data element returned by the implementing system for the aggregate services.
AggregateServiceDescription	Describes the processing logic of an aggregate service supported by the implementing system.
BiographicDataSet	Identifies a biographic data set supported by the implementing system.
CBEFFPatronFormat	A patron format supported by the implementing system.
ClassificationAlgorithmType	A classification algorithm type supported by the implementing system.
ConformanceClass	Identifies the conformance class of the BIAS implementation.
Gallery	A gallery or population group supported by the implementing system.
IdentityModel	Identifies whether the implementing system is person-centric or encounter-centric based.
MatchScore	Identifies the use of match scores returned by the implementing system.
QualityAlgorithm	A quality algorithm vendor and algorithm vendor product ID supported by the implementing system.
SupportedBiometric	A biometric type supported by the implementing system.

Value	Description
TransformOperation	A transform operation type supported by the implementing system.

3.2.173.2.20 CapabilityType

Field	Type	#	?	Meaning
CapabilityType			Y	Defines a single capability supported by an implementing system.
↑ CapabilityName	CapabilityName CapabilityName	1	Y	The name of the capability.
↑ CapabilityID	string	0..1	N	An identifier assigned to the capability by the implementing system.
↑ CapabilityDescription	string	0..1	N	A description of the capability.
↑ CapabilityValue	string	0..1	N	A value assigned to the capability.
↑ CapabilitySupportingValue	string	0..1	N	A secondary value supporting the capability.
↑↑ CapabilityAdditionalInfo	string	0..1	N	Contains additional information for the supported capability.

3.2.183.2.21 CBEFF_BIR_ListType

Field	Type	#	?	Meaning
CBEFF_BIR_ListType			Y	A list of CBEFF-BIR elements.
↑ BIR	CBEFF_BIR_Type CBEFF_BIR_Type	0..*	N	CBEFF structure containing information about a biometric sample.

3.2.193.2.22 CBEFF_BIR_Type

Field	Type	#	?	Meaning
CBEFF_BIR_Type			Y	Represents biometric information, with either a non-XML or XML representation.
↑ FormatOwner	positiveInteger	1	Y	Identifies the Patron format owner.
↑ FormatType	positiveInteger	1	Y	Identifies the Patron format type.
↑ BIR_Information		0..1	N	Describes what is contained in a BIR.
↑ bir- info BIR_Info	iso-iec19785-3-7: BIR- infoBIRInfoType	0..1	N	Contains information about the CBEFF-BIR.
↑ bdb- info BDB_Info	iso-iec19785-3-7: BDB- infoBDBInfoType	0..1	N	Contains information about the BDB in a simple CBEFF-BIR.

Field	Type	#	?	Meaning
↑ sb- infoSB_Info	iso-iec19785-3-7: SB- infoSBInfoType	0..1	N	Contains information about the security block, if used, in a simple CBEFF-BIR.
↑ BIR	BaseBIRType	1	Y	One of the following sub-elements must be present: BinaryBIR, URI_BIR, or XML_BIR.
↑ BinaryBIR	base64Binary	0..1	G	A non-XML CBEFF-BIR.
↑ URI_BIR	anyURI/IRI	0..1	G	A URI/IRI reference to a CBEFF-BIR.
↑ XML_BIR	iso-iec19785-3-7:BIR	0..1	G	An XML CBEFF-BIR, using the XML Patron Format as defined in ISO/IEC 19785-3:2007.

NOTE: The implementer is given three choices for encoding a BIR:

- As an XML BIR (following the XML Patron format as specified in ~~[CBEFF]~~~~[CBEFF]~~ Part 3, Clause 13)
- As a reference to a URI (from which the receiver would retrieve the actual BIR)
- As a complete Base64 encoded binary (non-XML) BIR.

The latter two alternatives can use any CBEFF Patron Format. The optional BIR_Information provides a mechanism for exposing metadata associated with a BIR format that is not easily decoded (i.e., a non-XML BIR). See section 5.3 for more information on handling of binary data within BIAS and INCITS 442, Clause 8.2, for more information on representing biometric data.

CBEFF_BIR_Type Attributes

Name	Type	Use	Meaning
format-owner	iso-iec19785-3-7:Registered-int	REQUI RED	Identifies the Patron format owner.
format-type	iso-iec19785-3-7:Registered-int	REQUI RED	Identifies the Patron format type.

NOTE:

- XML BIRs MUST conform to ISO/IEC 19785-3 (clause 13, XML Patron Format); however, non-XML (binary) and URI BIRs MAY implement any CBEFF patron format.
- It is RECOMMENDED that only registered CBEFF patron formats be used; however, in closed systems, this may not be required.

3.2.203.2.23 Classification

Type:	string
Description:	The result of a classification.

3.2.213.2.24 ClassificationAlgorithmType

Type:	string
-------	--------

Formatted: Indent: Left: 0"

Description:	Type of classification algorithm that was used to perform the classification.
---------------------	---

365 **3.2.223.2.25 ClassificationData**

Field	Type	#	?	Meaning
ClassificationData			Y	Contains information on classification results and the algorithm used to determine the classification.
↑ Classification	ClassificationClassification	1	Y	The result of the classification.
↑ ClassificationAlgorithmType	ClassificationAlgorithmType ClassificationAlgorithmType	1	Y	Identifies the type of classification algorithm that was used to perform the classification.

366 **3.2.233.2.26 EncounterListType**

Field	Type	#	?	Meaning
EncounterListType			Y	Defines a set of encounters.
↑ EncounterID	BIASIDType BIASIDType	0..*	N	The identifier of an encounter.

367 **3.2.27 FusionDecision**

Type:	string
Description:	The match decision assigned by the matching algorithm

368

369 **3.2.243.2.28 FusionInformationListType**

Field	Type	#	?	Meaning
FusionInformationListType			Y	Contains at a minimum two sets of fusion input elements, as input to the PerformFusionPerformFusion operation.
↑ FusionElement	FusionInformationType FusionInformationType	2..*	Y	A set of fusion information.

370 **3.2.253.2.29 FusionInformationType**

Field	Type	#	?	Meaning
FusionInformationType			Y	Represents the information necessary to perform a fusion operation.

Field	Type	#	?	Meaning
↑ BiometricType	iso-iec19785-3-7: MultipleTypes MultipleTypesType	1	Y	The type of biological or behavioral data stored in the biometric record, as defined by CBEFF.
↑ BiometricSubType	iso-iec19785-3-7: Subtype SubtypeType	0..1	N	More specifically defines the type of biometric data stored in the biometric record.
↑ AlgorithmOwner	string	1	Y	The owner or vendor of the algorithm used to determine the score or decision.
↑ AlgorithmType	string	1	Y	The Algorithm Owner's identifier for the specific algorithm product and version used to determine the score or decision.
↑ ScoreFusionResult	ScoreFusionResult	0..1	C	The similarity score assigned by the matching algorithm. Either a ScoreFusionScore or a DecisionFusionDecision element MUST be used.
↑ Decision	string	0..1	C	The match decision assigned by the matching algorithm. Either a Score or a Decision element MUST be used.

3.2.30 FusionResult

Type:	<u>complexType</u>
Description:	<u>The base type for any resulting types which indicate the status of a Fusion operation</u>

3.2.31 FusionScore

Type:	<u>Score</u>
Description:	<u>The similarity score assigned by the matching algorithm.</u>

~~3.2.26~~ 3.2.32 GenericRequestParameters

Field	Type	#	?	Meaning
GenericRequestParameters			Y	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifier ApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifier ApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.

Field	Type	#	?	Meaning
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested.

NOTE: See section 5.4 for alternatives for identifying the requested BIAS operation in a BIAS SOAP message.

3.2.33 IdentifySubjectResultType

Description:	A base type for all types that could be returned from the IdentifySubject operation
---------------------	---

3.2.273.2.34 InformationType

Field	Type	#	?	Meaning
InformationType			Y	Allows for an unlimited number of data element types, and it does not specify nor require any particular data element.
↑ ↑ unspecified	any	0..*	N	

3.2.283.2.35 ListFilterType

Field	Type	#	?	Meaning
ListFilterType			Y	Provides a method to filter the amount of information returned in a search of biometric data.
↑ BiometricTypeFilters		1	Y	
↑ ↑ BiometricTypeFilter	iso-iec19785-3-7: Multiple-typesMultipleTypesType	1..*	Y	Limits the returned information to a specific type of biometric, as defined by CBEFF.
↑ ↑ IncludeBiometricSubType	boolean	1	Y	A Boolean flag indicating if biometric subtype information should be returned.

3.2.293.2.36 MatchType

Type:	boolean
Description:	The result of a fusion method.

382 3.2.303.2.37 ProcessingOptionsType

Field	Type	#	?	Meaning
ProcessingOptionsType			Y	BIAS aggregate operations support the ability to include various processing options which direct and possibly control the business logic for that operation. The ProcessingOptionsType provides a method to represent those options. Processing options SHOULD be defined by the implementing system.
↑ Option	string	0..*	N	An option supported by the implementing system.

383 3.2.313.2.38 ProductID

Type:	string
Description:	The vendor's ID for a particular product.

384 3.2.323.2.39 QualityData

Field	Type	#	?	Meaning
QualityData			Y	Contains information about a biometric sample's quality and the algorithm used to compute the quality.
↑ QualityScore	iso-iec19785-3-7: QualityQualityType	0..1	N	The quality of a biometric sample.
↑ AlgorithmVendor	VendorIdentifierVendorIdentifier	1	Y	The vendor of the quality algorithm used to determine the quality score.
↑ AlgorithmVendorProductID	ProductIDProductID	1	Y	The vendor's ID for the algorithm used to determine the quality.
↑ AlgorithmVersion	VersionTypeVersionType	0..1	N	The version of the algorithm used to determine the quality.

385 3.2.333.2.40 ResponseStatus

Field	Type	#	?	Meaning
ResponseStatus			Y	
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.

~~3.2.34~~3.2.41 ReturnCode

Type:	unsignedLong
Description:	Return value specifying success or other condition.

ReturnCode Enumeration Values

Value	Description
0	Success

~~3.2.35~~3.2.42 Score

Type:	float
Description:	Match result or quality score.

NOTE: Matching scores MAY be in a standardized or proprietary form in terms of value range and interpretation. Quality scores, however, follow the definition found in ISO/IEC 19785-3, [section Clause 13](#).

3.2.36 TokenType

3.2.43 TokenResultType

Field	Type	#	?	Meaning
TokenResultType			Y	Defines a token that is returned for asynchronous processing.
↑TokenType	TokenType	1	Y	Defines a token that is returned for asynchronous processing.

3.2.44 TokenType

Field	Type	#	?	Meaning
TokenType			Y	Defines a token that is returned for asynchronous processing.
↑TokenValue	string	1	Y	A value returned by the implementing system that is used to retrieve the results to an operation at a later time.
↑Expiration	date	1	Y	A date and time at which point the token expires and the operation results are no longer guaranteed to be available.

NOTE: Date/time format is defined in INCITS 442 and is consistent with the date format specified in ISO/IEC 19785-3 and ISO 8601 ~~[DATE-TIME]~~. See also Annex A for schema definition.

3.2.37 VendorIdentifier

3.2.45 URI_BIR

Field	Type	string#	?	Meaning
URI_BIR	BaseBIRType		Y	Defines a BIR type of Binary
↑ URI	anyURI	1	Y	The URI of the BIR

Inserted Cells

Formatted Table

Formatted: Font: Bold

Inserted Cells

Inserted Cells

Formatted: Space Before: 3 pt, Keep with next

3.2.46 VendorIdentifier

Type:	string
Description:	Identifies a vendor.

NOTE: Vendor identifiers are registered with IBIA as the CBEFF registration authority (see ISO/IEC 19785-2). Registered biometric organizations are listed at: http://www.ibia.org/cbeff/_biometric_org.php.

Formatted: Underline color: Custom Color(0,56,168))

Field Code Changed

3.2.383.2.47 Version

Field	Type	#	?	Meaning
Version			Y	For a description or definition of each data element, see the referenced CBEFF standards in the CBEFF_BIR_Type_schema.
↑ major	nonNegativeInteger	1	Y	
↑ minor	nonNegativeInteger	1	Y	

3.2.393.2.48 VersionType

Type:	string
Description:	The version of a component.

3.2.49 XML_BIR

Field	Type	#	?	Meaning
XML_BIR	BaseBIRType		Y	Defines a BIR type of Binary
↑ XML	Iso-iec19785-3-7:BIRType	1	Y	BIR information in XML format

4 BIAS Messages

This section describes the BIAS messages implementing BIAS operations as defined in ANSI INCITS 442-2008/2010. The operations are listed alphabetically, with each operation containing a request and a response message. The tables follow the conventions described in section 3.1.

4.1 Primitive Operations

4.1.1 AddSubjectToGallery

[AddSubjectToGalleryRequest](#)

[AddSubjectToGalleryResponse](#)

[AddSubjectToGalleryRequest](#)

[AddSubjectToGalleryResponse](#)

The AddSubjectToGallery operation registers a subject to a given gallery or population group. As an OPTIONAL parameter, the value of the claim to identity by which the subject is known to the gallery MAY be specified. This claim to identity MUST be unique across the gallery. If no claim to identity is specified, the subject ID (assigned with the [CreateSubjectCreateSubject](#) operation) will be used as the claim to identity. Additionally, in the encounter-centric model, the encounter ID associated with the subject's biometrics that will be added to the gallery MUST be specified.

Formatted: Default Paragraph Font, Font: 10 pt

Request Message

Field	Type	#	?	Meaning
AddSubjectToGalleryRequestAddSubjectToGallery			Y	Register a subject to a given gallery or population group.
AddSubjectToGalleryRequest		1	Y	
GenericRequestParameters	GenericRequestParametersGenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "AddSubjectToGallery".
GalleryID	BIASIDTypeBIASIDType	1	Y	The identifier of the gallery or population group to which the subject will be added.

Field	Type	#	?	Meaning
↑ Identity	BIASIdentityBIASIdentity	1	Y	The identity to add to the gallery.
↑ SubjectID	BIASIDTypeBIASIDType	1	Y	A system unique identifier for a subject.
↑ IdentityClaim	BIASIDTypeBIASIDType	0..1	N	An identifier by which a subject is known to a particular gallery or population group. (This could be a username or account number, for example.)
↑ EncounterID	BIASIDTypeBIASIDType	0..1	C	The identifier of an encounter associated with the subject. Required for encounter-centric models.

Formatted: Default Paragraph Font

Formatted: Space Before: 4 pt

Formatted: Default Paragraph Font

Formatted: Space Before: 4 pt

Formatted: Space Before: 4 pt

Formatted: Default Paragraph Font

428

Response Message

Field	Type	#	?	Meaning
AddSubjectToGalleryResponse			Y	The response to an AddSubjectToGallery operation.
↑ AddSubjectToGalleryResponsePackage		<u>1</u>	<u>Y</u>	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.

Formatted Table

429

4.1.2 CheckQuality

430

[CheckQualityRequest](#)

431

[CheckQualityResponse](#)

432

[CheckQualityRequest](#)

433

[CheckQualityResponse](#)

434

The CheckQuality operation returns a quality score for a given biometric. The biometric input is provided in a CBEFF basic structure or CBEFF record, which in this specification is called a CBEFF-BIR. The algorithm vendor and algorithm vendor product ID MAY be optionally provided in order to request a particular algorithm's use in calculating the biometric quality. If an algorithm vendor is provided then the algorithm vendor product ID is REQUIRED. If no algorithm vendor is provided, the implementing system

[Biasprofile-1.0-cd-01](#) 20-October 2009

[biasprofile-v1.0-csd03](#) 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

439 will provide the algorithm vendor and algorithm vendor product ID that were used to calculate the
 440 biometric quality as output parameters.

441 **Request Message**

Field	Type	#	?	Meaning
CheckQualityRequestCheckQuality			Y	Calculate a quality score for a given biometric.
↑ CheckQualityRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "CheckQuality".
↑ BiometricData	BIASBiometricDataTypeBIASBiometricDataType	1	Y	Data structure containing a single biometric sample for which a quality score is to be determined.
↑ BIR	CBEFF_BIR_TypeCBEFF_BIR_Type	1	Y	The biometric sample.
↑ Quality	QualityDataQualityData	0..1	N	Specifies a particular algorithm vendor and vendor product ID.
↑ AlgorithmVendor	VendorIdentifierVendorIdentifier	1	Y	The vendor of the quality algorithm used to determine the quality score.

Field	Type	#	?	Meaning
AlgorithmVendorProductID	ProductIDProductID	1	Y	The vendor's ID for the algorithm used to determine the quality.

442 Response Message

Field	Type	#	?	Meaning
CheckQualityResponse			Y	The response to a CheckQuality operation.
CheckQualityResponsePackage		1	Y	
ResponseStatus	ResponseStatus ResponseStatus	1	Y	Returned status for the operation.
Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
Message	string	0..1	N	A short message corresponding to the return code.
QualityInfo	QualityDataQualityData	1	Y	Contains the quality information for the submitted biometric sample.
QualityScore	iso-iec19785-3-7: QualityQualityType	0..1	N	The quality of a biometric sample.
AlgorithmVendor	VendorIdentifierVendorIdentifier	1	Y	The vendor of the quality algorithm used to determine the quality score.
AlgorithmVendorProductID	ProductIDProductID	1	Y	The vendor's ID for the algorithm used to determine the quality.
AlgorithmVersion	VersionTypeVersionType	1	Y	The version of the algorithm used to determine the quality.

443 4.1.3 ClassifyBiometricData

444 [ClassifyBiometricDataRequest](#)

445 [ClassifyBiometricDataResponse](#)

446 [ClassifyBiometricDataRequest](#)

447 [ClassifyBiometricDataResponse](#)

448 The ClassifyBiometricData operation attempts to classify a biometric sample. For example, a fingerprint
449 biometric sample may be classified as a whorl, loop, or arch (or other classification classes and sub-
450 classes).

451 | To obtain the types of classification algorithms and classes, see the [QueryCapabilitiesQueryCapabilities](#)
452 | operation.

Formatted: Default Paragraph Font, Font: 10 pt

453 **Request Message**

Field	Type	#	?	Meaning
ClassifyBiometricDataRequestClassifyBiometricData			Y	Classifies a biometric sample.
↑ ClassifyBiometricDataRequest		1	Y	
↑ GenericRequestParameter s	GenericRequestParametersGenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "ClassifyBiometricData".
↑ BiometricData	BIASBiometricDataTypeBIASBiometricDataType	1	Y	Data structure containing a single biometric sample for which the classification is to be determined.
↑ BIR	CBEFF_BIR_TypeCBEFF_BIR_Type	1	Y	The biometric sample.

454 **Response Message**

Field	Type	#	?	Meaning
ClassifyBiometricDataResponse			Y	The response to a ClassifyBiometricData operation, containing the classification of a biometric sample.
↑ ClassifyBiometricDataResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.

Field	Type	#	?	Meaning
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ ClassificationData	<u>ClassificationData</u> <u>ClassificationData</u>	1	Y	Information on the results and type of classification performed.
↑ Classification	<u>ClassificationClass</u> <u>sification</u>	1	Y	The result of the classification.
↑ ClassificationAlgorithmType	<u>ClassificationAlgor</u> <u>ithmTypeClassific</u> <u>ationAlgorithmTyp</u> <u>e</u>	1	Y	Identifies the type of classification algorithm that was used to perform the classification.

4.1.4 CreateSubject

CreateSubjectRequest

CreateSubjectResponse

CreateSubjectRequest

CreateSubjectResponse

The CreateSubject operation creates a new subject record and associates a subject ID to that record. As an optional parameter, the subject ID MAY be specified by the caller. If no subject ID is specified, the CreateSubject operation will generate one.

Request Message

Field	Type	#	?	Meaning
<u>CreateSubject</u>			<u>Y</u>	
↑ CreateSubjectRequest		<u>1</u>	Y	
↑ GenericRequestParameters	<u>GenericRequestParameters</u> <u>GenericRequestParameters</u>	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	<u>ApplicationIdentifierApplicat</u> <u>ionIdentifier</u>	0..1	N	Identifies the requesting application.
↑ ApplicationUser	<u>ApplicationUserIdentifierAp</u> <u>plicationUserIdentifier</u>	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "CreateSubject".

Formatted: No underline, Font color: Auto

464 **Response Message**

Field	Type	#	?	Meaning
CreateSubjectResponse			Y	The response to a CreateSubject operation, containing the subject ID of the new subject record.
↑ CreateSubjectResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ Identity	BIASIdentityBIASIdentity	1	Y	
↑ SubjectID	BIASIDTypeBIASIDType	1	Y	A system unique identifier for a subject.

465 **4.1.5 DeleteBiographicData**

466 [DeleteBiographicDataRequest](#)

467 [DeleteBiographicDataResponse](#)

468 [DeleteBiographicDataRequest](#)

469 [DeleteBiographicDataResponse](#)

470 The DeleteBiographicData operation erases all of the biographic data associated with a given subject
471 record. In the encounter-centric model the operation erases all of the biographic data associated with a
472 given encounter, and therefore the encounter ID MUST be specified.

473 When deleting data, BIAS implementations MAY completely erase the information in order to prevent the
474 ability to reconstruct a record in whole or in part, or they MAY track and record the deleted information for
475 auditing and/or quality control purposes.

476 **Request Message**

Field	Type	#	?	Meaning
DeleteBiographicDataRequestDeleteBiographicData			Y	Erase all of the biographic data associated with a given subject record or, in the encounter-centric model, with a given encounter.
↑ DeleteBiographicDataRequest		1	Y	

Field	Type	#	?	Meaning
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "DeleteBiographicData"
↑ Identity	BIASIdentityBIASIdentity	1	Y	
↑ SubjectID	BIASIDTypeBIASIDType	1	Y	A system unique identifier for a subject.
↑ EncounterID	BIASIDTypeBIASIDType	0..1	C	The identifier of an encounter associated with the subject. Required for encounter-centric models.

477 **Response Message**

Field	Type	#	?	Meaning
DeleteBiographicDataResponse			Y	The response to a DeleteBiographicData operation.
↑ DeleteBiographicDataResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.

Formatted Table

Formatted Table

478 **4.1.6 DeleteBiometricData**

479 [DeleteBiometricDataRequest](#)

480 [DeleteBiometricDataResponse](#)

481 [DeleteBiometricDataRequest](#)

482 [DeleteBiometricDataResponse](#)

483 The DeleteBiometricData operation erases all of the biometric data associated with a given subject
484 record. In the encounter-centric model the operation erases all of the biometric data associated with a
485 given encounter, and therefore the encounter ID MUST be specified.

486 When deleting data, BIAS implementations MAY completely erase the information in order to prevent the
487 ability to reconstruct a record in whole or in part, or they MAY track and record the deleted information for
488 auditing and/or quality control purposes.

489 Request Message

Field	Type	#	?	Meaning
DeleteBiometricDataRequestDeleteBiometricData			Y	Erase all of the biometric data associated with a given subject record or, in the encounter-centric model, with a given encounter.
DeleteBiometricDataRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "DeleteBiometricData".
↑ Identity	BIASIdentityBIASIdentity	1	Y	
↑ SubjectID	BIASIDTypeBIASIDType	1	Y	A system unique identifier for a subject.
↑ EncounterID	BIASIDTypeBIASIDType	0..1	C	The identifier of an encounter associated with the subject. Required for encounter-centric models.

490 **Response Message**

Field	Type	#	?	Meaning
DeleteBiometricDataResponse			Y	The response to a DeleteBiometricData operation.
DeleteBiometricDataResponsePackage		1	Y	
ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
Message	string	0..1	N	A short message corresponding to the return code.

Formatted Table

Formatted Table

491 **4.1.7 DeleteSubject**

492 [DeleteSubjectRequest](#)

493 [DeleteSubjectResponse](#)

494 [DeleteSubjectRequest](#)

495 [DeleteSubjectResponse](#)

496 The DeleteSubject operation deletes an existing subject record and, in an encounter-centric model, any
497 associated encounter information from the system. This operation also removes the subject from any
498 registered galleries.

499 When deleting a subject, BIAS implementations MAY completely erase the subject information in order to
500 prevent the ability to reconstruct a record or records in whole or in part, or they MAY track and record the
501 deleted information for auditing and/or quality control purposes.

502 **Request Message**

Field	Type	#	?	Meaning
DeleteSubjectRequestDeleteSubject			Y	Delete an existing subject record and, in an encounter-centric model, any associated encounter information.
DeleteSubjectRequest		1	Y	
GenericRequestParameters	GenericRequestParametersGenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.

Field	Type	#	?	Meaning
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "DeleteSubject".
↑ Identity	BIASIdentityBIASIdentity	1	Y	The identity of the subject to delete.
↑ SubjectID	BIASIDTypeBIASIDType	1	Y	A system unique identifier for a subject.

503 Response Message

Field	Type	#	?	Meaning
DeleteSubjectResponse			Y	The response to a DeleteSubject operation.
↑ DeleteSubjectResponsePackage		<u>1</u>	<u>Y</u>	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.

504 4.1.8 DeleteSubjectFromGallery

- 505 [DeleteSubjectFromGalleryRequest](#)
- 506 [DeleteSubjectFromGalleryResponse](#)
- 507 [DeleteSubjectFromGalleryRequest](#)
- 508 [DeleteSubjectFromGalleryResponse](#)

509 The DeleteSubjectFromGallery operation removes the registration of a subject from a gallery or
510 population group. The subject is identified by either the subject ID or the claim to identity that was
511 specified in the [AddSubjectToGalleryAddSubjectToGallery](#) operation.

512 Request Message

Field	Type	#	?	Meaning
DeleteSubjectFromGalleryRequestDeleteSubjectFromGallery			Y	Remove the registration of a subject from a gallery or population group.
↑ DeleteSubjectFromGalleryRequest		<u>1</u>	<u>Y</u>	

Field	Type	#	?	Meaning
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifier ApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifier ApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "DeleteSubjectFromGallery".
↑ GalleryID	BIASIDType BIASIDType	1	Y	The identifier of the gallery or population group from which the subject will be deleted.
↑ Identity	BIASIdentity BIASIdentity	1	Y	The identity to remove from the gallery.
↑ SubjectID	BIASIDType BIASIDType	0..1	C	A system unique identifier for a subject. Required if an Identity Claim is not provided.
↑ IdentityClaim	BIASIDType BIASIDType	0..1	C	An identifier by which a subject is known to a particular gallery or population group. Required if a Subject ID is not provided.

513 Response Message

Field	Type	#	?	Meaning
DeleteSubjectFromGalleryResponse			Y	The response to a DeleteSubjectFromGallery operation.
↑ DeleteSubjectFromGalleryResponsePackage				
↑ ResponseStatus	ResponseStatus ResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCode ReturnCode	1	Y	The return code indicates the return status of the operation.

Formatted Table

Formatted Table

Field	Type	#	?	Meaning
↑ Message	string	0..1	N	A short message corresponding to the return code.

Formatted Table

4.1.9 GetIdentifySubjectResults

[GetIdentifySubjectResultsRequest](#)

[GetIdentifySubjectResultsResponse](#)

[GetIdentifyResultsRequest](#)

[GetIdentifySubjectResultsResponse](#)

The GetIdentifySubjectResults operation retrieves the identification results for the specified token. This operation is used in conjunction with the [IdentifySubject](#) operation. If the IdentifySubject operation is implemented as an asynchronous service, the implementing system returns a token and the GetIdentifySubjectResults operation is used to poll for the results of the original IdentifySubject request.

Request Message

Field	Type	#	?	Meaning
GetIdentifySubjectResultsRequest GetIdentifySubjectResults			Y	Retrieve the identification results for a specified token, which was returned by the IdentifySubject operation.
↑ GetIdentifySubjectResultsRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifier ApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifier ApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "GetIdentifySubjectResults".
↑ Token	TokenType TokenType	1	Y	A value used to retrieve the results of an IdentifySubject request.

Field	Type	#	?	Meaning
↑ TokenValue	string	1	Y	A value returned by the implementing system that is used to retrieve the results to an operation at a later time.
↑ Expiration	date	1	Y	A date and time at which point the token expires and the operation results are no longer guaranteed to be available.

524 Response Message

Field	Type	#	?	Meaning
GetIdentifySubjectResultsResponse			Y	The response to a GetIdentifySubjectResults operation, which includes a candidate list.
↑ GetIdentifySubjectResultsResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ CandidateList	CandidateListTypeCandidateListType	1	Y	A rank-ordered list of candidates that have a likelihood of matching the input biometric sample.
↑ Candidate	CandidateTypeCandidateType	0..*	N	A single candidate.
↑ Score	ScoreScore	0..1	N	The match score.
↑ BiographicData	BiographicDataTypeBiographicDataType	0..1	N	Biographic data associated with the candidate match.
↑ BIRList	CBEFF_BIR_ListTypeCBEFF_BIR_ListType	1	Y	Biometric data associated with the candidate match.
↑ BIR	CBEFF_BIR_TypeCBEFF_BIR_Type	0..*	N	CBEFF structure containing information about a biometric sample.

525 4.1.10 IdentifySubject

526 [IdentifySubjectRequest](#)

527 [IdentifySubjectResponse](#)

528 [IdentifySubjectRequest](#)

529 [IdentifySubjectResponse](#)

530 The IdentifySubject operation performs an identification search against a given gallery for a given
531 biometric, returning a rank-ordered candidate list of a given maximum size.

532 If the IdentifySubject operation is implemented as a synchronous service, the implementing system
533 immediately processes the request and returns the results in the candidate list. If the IdentifySubject
534 operation is implemented as an asynchronous service, the implementing system returns a token, which is
535 an indication that the request is being handled asynchronously. In this case, the

536 [GetIdentifySubjectResults](#) operation is used to poll for the results of the
537 IdentifySubject request.

538 Request Message

Field	Type	#	?	Meaning
IdentifySubjectRequest	IdentifySubjectRequest		Y	Perform an identification search against a given gallery for a given biometric.
↑ IdentifySubjectRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifier ApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifier ApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "IdentifySubject".
↑ GalleryID	BIASIDType BIASIDType	1	Y	The identifier of the gallery or population group which will be searched.
↑ Identity	BIASIdentity BIASIdentity	1	Y	Contains the BIR, a data structure containing the biometric sample for the search.
↑ BiometricData	BIASBiometricDataType BIASBiometricDataType	1	Y	An Identity's biometric data.

Biasprofile-1.0-cd-01 20-October-2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

Field	Type	#	?	Meaning
↑ BIR	CBEFF_BIR_TypeCBEFF_BIR_Type	1	Y	Contains biometric information in either a non-XML or an XML representation.
↑ MaxListSize	positiveInteger	1	Y	The maximum size of the candidate list that should be returned.

539 Response Message

Field	Type	#	?	Meaning
IdentifySubjectResponse			Y	The response to an IdentifySubject operation, returning a rank-ordered candidate list.
↑ IdentifySubjectResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatusResp onseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCo de	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ CandidateList	CandidateListTypeCa ndidateListResultType (see IdentifySubjectResultT ype)	0..1	C	A rank-ordered list of candidates that have a likelihood of matching the input biometric sample (i.e., exceed the system threshold). Rank ordering is from highest to lowest match score. Returned with successful synchronous request processing.
↑ Candidate	CandidateTypeCandid ateType	0..*	N	A single candidate.
↑ Score	string	0..1	N	The match score.
↑ BiographicData	BiographicDataTypeBi ographicDataType	0..1	N	Biographic data associated with the candidate match.
↑ BIRList	CBEFF_BIR_ListType CBEFF_BIR_ListType	1	Y	Biometric data associated with the candidate match.

Field	Type	#	?	Meaning
↑ BIR	CBEFF_BIR_TypeCB EFF_BIR_Type	0..*	N	CBEFF structure containing information about a biometric sample.
↑ Token	TokenTypeTokenResu ltType (see IdentifySubjectResultT ype)	0..1	C	A token used to retrieve the results of the IdentifySubject operation. Returned with asynchronous request processing.
↑ TokenValue	string	1	Y	A value returned by the implementing system that is used to retrieve the results to an operation at a later time.
↑ Expiration	date	1	Y	A date and time at which point the token expires and the operation results are no longer guaranteed to be available.

NOTES:

- (1) In the event that the number of candidates exceeding the threshold exceeds the MaxListSize, the system will determine which candidate is included in the last position of the rank ordered candidate list (i.e., in the event of a tie).
- (2) Requesters MAY NOT change the system thresholds.

4.1.11 ListBiographicData

[ListBiographicDataRequest](#)

[ListBiographicDataResponse](#)

[ListBiographicDataRequest](#)

[ListBiographicDataResponse](#)

The ListBiographicData operation lists the biographic data elements stored for a subject using the Biographic Data Elements output parameter. Note that no actual biographic data is returned by this operation (see the [RetrieveBiographicInformation](#) operation to obtain the biographic data). In the encounter-centric model, an encounter ID MAY be specified to indicate that only the biographic data elements stored for that encounter should be returned. If an encounter ID is not specified and encounter data exists for the subject, the operation returns the list of encounter IDs which contain biographic data using the Encounter List output parameter, and the Biographic Data Elements output parameter is empty.

Formatted: Font: 10 pt

Request Message

Field	Type	#	?	Meaning
ListBiographicDataRequestListBiogra phicData			Y	Lists the biographic data elements stored for a subject.
↑ ListBiographicDataRequest		1	Y	

Biasprofile-1.0-cd-01

20 October 2009

biasprofile-v1.0-csd03

23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved.—

Standards Track Work Product

Page 50 of 201

Field	Type	#	?	Meaning
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifier ApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifier ApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "ListBiographicData".
↑ Identity	BIASIdentity BIASIdentity	1	Y	Identifies the subject or, in the encounter-centric model, a subject and an encounter.
↑ SubjectID	BIASIDType BIASIDType	1	Y	A system unique identifier for a subject.
↑ EncounterID	BIASIDType BIASIDType	0..1	N	The identifier of an encounter associated with the subject.

559 Response Message

Field	Type	#	?	Meaning
ListBiographicDataResponse			Y	The response to a ListBiographicData request, containing a list of biographic data elements stored for a subject. In the encounter-centric model, the biographic data elements for a specific encounter are returned. If an encounter ID is not specified and encounter data exists for the subject, the list of encounter IDs which contain biographic data is returned.
↑ ListBiographicDataResponsePackage		<u>1</u>	<u>Y</u>	

Field	Type	#	?	Meaning
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ Identity	BIASIdentityBIASIdentity	1	Y	Contains a list of biographic data elements associated with a subject or encounter; non-empty if the service was successful, biographic data exists, and either (a) the person-centric model is being used or (b) the encounter-centric model is being used and an encounter identifier was specified.
↑ BiographicDataElements	BiographicDataTypeBiographicDataType	0..1	C	An Identity's biographic data elements that are stored in the implementing system.
↑ BiographicDataItem	BiographicDataItemBiographicDataItem	0..*	N	A single biographic data element.
↑ Name	string	1	Y	The name of the biographic data item.
↑ Type	string	1	Y	The data type for the biographic data item.

Field	Type	#	?	Meaning
↑ EncounterList	EncounterListTypeEncounterListType	0..1	C	A list of encounter ID's associated with a subject and which contain biographic data; non-empty if the service was successful, biographic data exists, the encounter-centric model is being used, and an encounter identifier was not specified.
↑ EncounterID	BIASIDTypeBIASIDType	0..*	N	The identifier of an encounter.

4.1.12 ListBiometricData

[ListBiometricDataRequest](#)

[ListBiometricDataResponse](#)

[ListBiometricDataRequest](#)

[ListBiometricDataResponse](#)

The ListBiometricData operation lists the biometric data elements stored for a subject using the Biometric Data List output parameter. Note that no actual biometric data is returned by this operation (see the [RetrieveBiometricInformationRetrieveBiometricInformation](#) operation to obtain the biometric data). In the encounter-centric model, an encounter ID MAY be specified to indicate that only the biometric data elements stored for that encounter should be returned. If an encounter ID is not specified and encounter data exists for the subject, the operation returns the list of encounter IDs which contain biometric data using the Encounter List output parameter, and the Biometric Data List output parameter is empty.

An optional parameter MAY be used to indicate a filter on the list of returned data. Such a filter may indicate that only biometric types should be listed (e.g., face, finger, iris, etc.) or that only biometric subtypes for a particular biometric type should be listed (e.g., all fingerprints: left slap, right index, etc.). If a filter is not specified, all biometric type and biometric subtype information are listed (e.g., left index finger, right iris, face frontal, etc.).

Request Message

Field	Type	#	?	Meaning
ListBiometricDataRequestListBiometricData			Y	Lists the biometric data elements stored for a subject.
↑ ListBiometricDataRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParametersGenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.

Field	Type	#	?	Meaning
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "ListBiometricData".
↑ Identity	BIASIdentityBIASIdentity	1	Y	Identifies the subject or, in the encounter-centric model, a subject and an encounter.
↑ SubjectID	BIASIDTypeBIASIDType	1	Y	A system unique identifier for a subject.
↑ EncounterID	BIASIDTypeBIASIDType	0..1	N	The identifier of an encounter associated with the subject.
↑ ListFilterType	ListFilterTypeListFilterType	0..1	N	Indicates what biometric information should be returned.
↑ BiometricTypeFilter	iso-iec19785-3-7:Multiple-types	1..*	Y	Limits the returned information to a specific type of biometric, as defined by CBEFF.
↑ IncludeBiometricSubType	boolean	1	Y	A Boolean flag indicating if biometric subtype information should be returned.

578 **Response Message**

Field	Type	#	?	Meaning
ListBiometricDataResponse			Y	The response to a ListBiometricData operation, containing a list of biometric data elements stored for a subject. In the encounter-centric model, the biometric data elements for a specific encounter are returned. If an encounter ID is not specified and encounter data exists for the subject, the list of encounter IDs which contain biometric data is returned.
↑ ListBiometricDataResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ Identity	BIASIdentityBIASIdentity	0..1	N	Includes a list of biometric data elements associated with a subject or encounter or a list of encounter ID's associated with a subject and which contain biometric data.
↑ BiometricData	BIASBiometricDataTypeBIASBiometricDataType	0..1	C	An Identity's biometric data.

Field	Type	#	?	Meaning
↑ BiometricDataList	BiometricDataListTypeBiometricDataListType	0..1	N	A list of biometric data elements.
↑ BiometricDataElement	BiometricDataElementTypeBiometricDataElementType	1..*	Y	Data structure containing information about a biometric record.
↑ BiometricType	iso-iec19785-3-7:Multiple-types MultipleTypesType	1	Y	The type of biological or behavioral data stored in the biometric record, as defined by CBEFF.
↑ BiometricTypeCount	positiveInteger	0..1	N	The number of biometric records having the biometric type recorded in the biometric type field.
↑ BiometricSubType	iso-iec19785-3-7:Subtype SubtypeType	0..1	N	More specifically defines the type of biometric data stored in the biometric record, as defined by CBEFF.
↑ BDBFormatOwner	iso-iec19785-3-7:Registered-in positiveInteger	1	Y	Identifies the standards body, working group, industry consortium, or other CBEFF biometric organization that has defined the format for the biometric data.
↑ BDBFormatType	iso-iec19785-3-7:Registered-in positiveInteger	1	Y	Identifies the specific biometric data format specified by the CBEFF biometric organization recorded in the BDB Format Owner field.

Field	Type	#	?	Meaning
↑ EncounterList	EncounterListTypeEncounterListType	0..1	C	A list of encounter ID's associated with a subject and which contain biometric data; non-empty if the service was successful, biometric data exists, the encounter-centric model is being used, and an encounter identifier was not specified.
↑ EncounterID	BIASIDTypeBIASIDType	1..*	Y	The identifier of an encounter.

4.1.13 PerformFusion

[PerformFusionRequest](#)

[PerformFusionResponse](#)

[PerformFusionRequest](#)

[PerformFusionResponse](#)

The PerformFusion operation accepts either match score or match decision information and creates a fused match result. ~~The FusionInformationListType, through the FusionInformationType~~
The [FusionInformationListType](#), through the [FusionInformationType](#), provides specific elements for match score input and match decision input. The fusion method and processes are left to the implementing system.

Request Message

Field	Type	#	?	Meaning
PerformFusionRequestPerformFusion			Y	Accepts either match score or match decision information and creates a fused match result.
↑ PerformFusionRequest		<u>1</u>	<u>Y</u>	
↑ GenericRequestParameters	GenericRequestParametersGenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.

Field	Type	#	?	Meaning
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "PerformFusion".
↑ FusionInput	FusionInformationListTypeFusionInformationListType	1	Y	Score or decision input information to the fusion method.
↑ FusionElement	FusionInformationTypeFusionInformationType	2..*	Y	A set of fusion information.
↑ BiometricType	iso-iec19785-3-7: Multiple-types MultipleTypesType	1	Y	The type of biological or behavioral data stored in the biometric record, as defined by CBEFF.
↑ BiometricSubType	iso-iec19785-3-7: Subtype SubtypeType	0..1	N	More specifically defines the type of biometric data stored in the biometric record.
↑ AlgorithmOwner	string	1	Y	The owner or vendor of the algorithm used to determine the score or decision.
↑ AlgorithmType	string	1	Y	The Algorithm Owner's identifier for the specific algorithm product and version used to determine the score or decision.

Field	Type	#	?	Meaning
ScoreFusionResult	ScoreFusionResult	0..1	C	The similarity score assigned by the matching algorithm. Either a ScoreFusionScore or a DecisionFusionDecision element MUST be used.
Decision	string	0..1	C	The match decision assigned by the matching algorithm. Either a Score or a Decision element MUST be used.

590 Response Message

Field	Type	#	?	Meaning
PerformFusionResponse			Y	The response to the PerformFusion operation.
PerformFusionResponsePackage		1	Y	
ResponseStatus	ResponseStatus ResponseStatus	1	Y	Returned status for the operation.
Return	ReturnCode ReturnCode	1	Y	The return code indicates the return status of the operation.
Message	string	0..1	N	A short message corresponding to the return code.
Match	MatchType MatchType	1	1	Indicates the result of the fusion method.

Formatted Table

Formatted Table

591 4.1.14 QueryCapabilities

592 [QueryCapabilitiesRequest](#)

593 [QueryCapabilitiesResponse](#)

594 [QueryCapabilitiesRequest](#)

595 [QueryCapabilitiesResponse](#)

596 The QueryCapabilities operation returns a list of the capabilities, options, galleries, etc. that are supported
597 by the BIAS implementation. Refer to Annex A in the INCITS BIAS standard for conformance
598 requirements regarding which capability names an implementation must use in the QueryCapabilities
599 operation.

600 **Request Message**

Field	Type	#	?	Meaning
QueryCapabilitiesRequestQueryCapabilities			Y	Returns a list of the capabilities, options, galleries, etc. that are supported by the BIAS implementation.
QueryCapabilitiesRequest		<u>1</u>	<u>Y</u>	
↳ GenericRequestParameters	GenericRequestParametersGenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↳ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↳ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↳ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "QueryCapabilities".

601 **Response Message**

Field	Type	#	?	Meaning
QueryCapabilitiesResponse			Y	The response to a QueryCapabilities operation.
QueryCapabilitiesResponsePackage		<u>1</u>	<u>Y</u>	
↳ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↳ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↳ Message	string	0..1	N	A short message corresponding to the return code.
↳ CapabilityList	CapabilityListTypeCapabilityListType	1	Y	A list of capabilities supported by the BIAS implementation.
↳ Capability	CapabilityTypeCapabilityType	0..*	N	A single capability.

Field	Type	#	?	Meaning
↑ CapabilityName	CapabilityNameCapabilityName	1	Y	The name of the capability.
↑ CapabilityID	string	0..1	N	An identifier assigned to the capability by the implementing system.
↑ CapabilityDescription	string	0..1	N	A description of the capability.
↑ CapabilityValue	string	0..1	N	A value assigned to the capability.
↑ CapabilitySupportingValue	string	0..1	N	A secondary value supporting the capability.
↑ CapabilityAdditionalInfo	string	0..1	N	Contains additional information for the supported capability.

4.1.15 RetrieveBiographicInformation

[RetrieveBiographicInformationRequest](#)

[RetrieveBiographicInformationResponse](#)

[RetrieveBiographicInformationRequest](#)

[RetrieveBiographicInformationResponse](#)

The RetrieveBiographicInformation operation retrieves the biographic data associated with a subject ID. In the encounter-centric model, the encounter ID MAY be specified and the ~~operation will~~[operation will](#) return the biographic data associated with that encounter. If the encounter ID is not specified in the encounter-centric model, the operation returns the biographic information associated with the most recent encounter.

Request Message

Field	Type	#	?	Meaning
RetrieveBiographicInformationRequest RetrieveBiographicInformation			Y	Retrieves the biographic data associated with a subject ID.
↑ RetrieveBiographicInformationRequest		<u>1</u>	<u>Y</u>	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.

Field	Type	#	?	Meaning
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "RetrieveBiographicInformation".
↑ Identity	BIASIdentityBIASIdentity	1	Y	Identifies the subject or, in the encounter-centric model, a subject and an encounter.
↑ SubjectID	BIASIDTypeBIASIDType	1	Y	A system unique identifier for a subject.
↑ EncounterID	BIASIDTypeBIASIDType	0..1	N	The identifier of an encounter associated with the subject.

613 Response Message

Field	Type	#	?	Meaning
RetrieveBiographicInformationResponse			Y	The response to a RetrieveBiographicInformation operation.
↑ RetrieveBiographicInformationResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ Identity	BIASIdentityBIASIdentity	1	Y	Includes the set of biographic data associated with a subject.

Field	Type	#	?	Meaning
↑ BiographicData	BiographicDataTypeBiographicDataType	1	Y	An Identity's biographic data. One of the following elements MUST be present.
↑ LastName	string	0..1	C	The last name of a subject.
↑ FirstName	string	0..1	C	The first name of a subject.
↑ BiographicDataItem	BiographicDataItemBiographicDataItem	0..*	C	A single biographic data element.
↑ BiographicDataSet	BiographicDataSetBiographicDataItem	0..1	C	A set of biographic data information.

4.1.16 RetrieveBiometricInformation

[RetrieveBiometricInformationRequest](#)

[RetrieveBiometricInformationResponse](#)

[RetrieveBiometricInformationRequest](#)

[RetrieveBiometricInformationResponse](#)

The RetrieveBiometricInformation operation retrieves the biometric data associated with a subject ID. In the encounter-centric model, the encounter ID MAY be specified and the ~~operation will~~[operation will](#) return the biometric data associated with that encounter. If the encounter ID is not specified in the encounter-centric model, the operation returns the biometric information associated with the most recent encounter. The operation provides an OPTIONAL input parameter to specify that only biometric data of a certain type should be retrieved.

Request Message

Field	Type	#	?	Meaning
RetrieveBiometricInformationRequest RetrieveBiometricInformation			Y	Retrieves the biometric data associated with a subject ID.
↑ RetrieveBiometricInformationRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.

Field	Type	#	?	Meaning
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "RetrieveBiometricInformation".
↑ Identity	BIASIdentity BIASIdentity	1	Y	Identifies the subject or, in the encounter-centric model, a subject and an encounter.
↑ SubjectID	BIASIDType BIASIDType	1	Y	A system unique identifier for a subject.
↑ EncounterID	BIASIDType BIASIDType	0..1	N	The identifier of an encounter associated with the subject.
↑ BiometricType	iso-iec19785-3-7:Multiple-types	0..1	N	The type of biological or behavioral data to retrieve.

626

Response Message

Field	Type	#	?	Meaning
RetrieveBiometricInformationResponse			Y	The response to a RetrieveBiometricInformation operation.
↑ RetrieveBiometricInformationResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatus ResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCode ReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ Identity	BIASIdentity BIASIdentity	1	Y	Includes the biometric data associated with a subject.
↑ BiometricData	BIASBiometricDataType BIASBiometricDataType	1	Y	An Identity's biometric data.
↑ BIRList	CBEFF_BIR_ListType CBEFF_BIR_ListType	1	Y	A list of CBEFF-BIR elements.
↑ BIR	CBEFF_BIR_Type CBEFF_BIR_Type	0..*	N	CBEFF structure containing information about a biometric sample.

Biasprofile-1.0-cd-01

20 October 2009

biasprofile-v1.0-csd03

23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved.—

Standards Track Work Product

Page 64 of 201

627 4.1.17 SetBiographicData

628 [SetBiographicDataRequest](#)

629 [SetBiographicDataResponse](#)

630 [SetBiographicDataRequest](#)

631 [SetBiometricDataResponse](#)

632 The SetBiographicData operation associates biographic data to a given subject record. The identity
 633 model of the system determines whether the biographic information should replace any existing
 634 biographic information (person-centric model) or if a new encounter should be created and associated
 635 with the subject (encounter-centric model). For encounter-centric models, the encounter ID MAY be
 636 specified by the caller in order to link biographic and biometric information (assuming biometric
 637 information was previously associated using the [SetBiometricDataSetBiometricData](#) operation). If the
 638 encounter ID is omitted for the encounter-centric model, the operation returns a system-assigned
 639 encounter ID.

640 Request Message

Field	Type	#	?	Meaning
SetBiographicDataRequestSetBiographicData			Y	Associates biographic data to a given subject record.
↑ SetBiographicDataRequest		<u>1</u>	<u>Y</u>	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "SetBiographicData".
↑ Identity	BIASIdentityBIASIdentity	1	Y	Identifies the subject or, in the encounter-centric model, a subject and an encounter, and includes the biographic data to store.

Field	Type	#	?	Meaning
↑ SubjectID	BIASIDType BIASIDType	1	Y	A system unique identifier for a subject.
↑ EncounterID	BIASIDType BIASIDType	0..1	N	The identifier of an encounter associated with the subject.
↑ BiographicData	BiographicDataType BiographicDataType	1	Y	An Identity's biographic data. One of the following elements MUST be present.
↑ LastName	string	0..1	C	The last name of a subject.
↑ FirstName	string	0..1	C	The first name of a subject.
↑ BiographicDataItem	BiographicDataItem TypeBiographicDataItem	0..*	C	A single biographic data element.
↑ BiographicDataSet	BiographicDataSet TypeBiographicDataSet	0..1	C	A set of biographic data information.

641 Response Message

Field	Type	#	?	Meaning
SetBiographicDataResponse			Y	The response to a SetBiographicData operation.
↑ SetBiographicDataResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatus ResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCode ReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.

Formatted Table

Formatted Table

Field	Type	#	?	Meaning
↑ Identity	BIASIdentity BIASIdentity	0..1	C	In an encounter-centric model, identifies the encounter ID assigned to a new encounter.
↑ EncounterID	BIASIDType BIASIDType	1	Y	The identifier of an encounter associated with the subject.

Formatted Table

4.1.18 SetBiometricData

[SetBiometricDataRequest](#)

[SetBiometricDataResponse](#)

[SetBiometricDataRequest](#)

[SetBiometricDataResponse](#)

The SetBiometricData operation associates biometric data to a given subject record. The identity model of the system determines whether the biometric information should replace any existing biometric information (person-centric model) or if a new encounter should be created and associated with the subject (encounter-centric model). For encounter-centric models, the encounter ID MAY be specified by the caller in order to link biographic and biometric information (assuming biographic information was previously associated using the [SetBiographicData](#) operation). If the encounter ID is omitted for the encounter-centric model, the operation returns a system-assigned encounter ID.

Request Message

Field	Type	#	?	Meaning
SetBiometricDataRequest SetBiometricData			Y	Associates biometric data to a given subject record.
↑ SetBiometricDataRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifier ApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifier ApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "SetBiometricData".

Field	Type	#	?	Meaning
↑ Identity	BIASIdentity BIASIdentity	1	Y	Identifies the subject or, in the encounter-centric model, a subject and an encounter, and includes the biometric data to store.
↑ SubjectID	BIASIDType BIASIDType	1	Y	A system unique identifier for a subject.
↑ EncounterID	BIASIDType BIASIDType	0..1	N	The identifier of an encounter associated with the subject.
↑ BiometricData	BIASBiometricDataType BIASBiometricDataType	1	Y	An Identity's biometric data.
↑ BIRList	CBEFF_BIR_ListType CBEFF_BIR_ListType	1	Y	A list of CBEFF-BIR elements.
↑ BIR	CBEFF_BIR_Type CBEFF_BIR_Type	1..*	Y	CBEFF structure containing information about a biometric sample.

655 Response Message

Field	Type	#	?	Meaning
SetBiometricDataResponse			Y	The response to a SetBiometricData operation.
↑ SetBiometricDataResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatus ResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCode ReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ Identity	BIASIdentity BIASIdentity	0..1	C	In an encounter-centric model, identifies the encounter ID assigned to a new encounter.

Formatted Table

Formatted Table

Field	Type	#	?	Meaning
↑ EncounterID	BIASIDType BIASIDType	1	Y	The identifier of an encounter associated with the subject.

Formatted Table

656 4.1.19 TransformBiometricData

657 [TransformBiometricDataRequest](#)

658 [TransformBiometricDataResponse](#)

659 [TransformBiometricDataRequest](#)

660 [TransformBiometricDataResponse](#)

661 The TransformBiometricData operation transforms or processes a given biometric in one format into a
662 new target format.

663 Request Message

Field	Type	#	?	Meaning
TransformBiometricDataRequest TransformBiometricData			Y	Transforms or processes a given biometric in one format into a new target format.
↑ TransformBiometricDataRequest		<u>1</u>	<u>Y</u>	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifier ApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifier ApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "TransformBiometricData".
↑ InputBIR	CBEFF_BIR_Type CBEFF_BIR_Type	1	Y	Data structure containing the biometric information to be transformed.
↑ TransformOperation	unsignedLong	1	Y	Value indicating the type of transformation to perform.

Field	Type	#	?	Meaning
⬆ TransformControl	string	0..1	N	Specifies controls for the requested transform operation. Note: This could be a compression ratio, target data format, etc.

NOTE: The values for TransformOperation and TransformControl are implementation specific.

Response Message

Field	Type	#	?	Meaning
TransformBiometricDataResponse			Y	The response to a TransformBiometric Data operation.
⬆ TransformBiometricDataResponsePackage		1	Y	
⬆ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
⬆ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
⬆ Message	string	0..1	N	A short message corresponding to the return code.
⬆ OutputBIR	CBEFF_BIR_TypeCBEFF_BIR_Type	0..1	N	Data structure containing the new, transformed biometric information.

Formatted Table

Formatted Table

4.1.20 UpdateBiographicData

[UpdateBiographicDataRequest](#)

[UpdateBiographicDataResponse](#)

[UpdateBiographicDataRequest](#)

[UpdateBiographicDataResponse](#)

The UpdateBiographicData operation updates the biographic data for an existing subject record. The operation replaces any existing biographic data with the new biographic data. In the encounter-centric model, the encounter ID MUST be specified.

674 **Request Message**

Field	Type	#	?	Meaning
UpdateBiographicDataRequestUpdateBiographicData			Y	Updates the biographic data for a given subject record.
↑ UpdateBiographicDataRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParametersGenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "UpdateBiographic Data".
↑ Identity	BIASIdentityBIASIdentity	1	Y	Identifies the subject or, in the encounter-centric model, a subject and an encounter, and includes the biographic data to update.
↑ SubjectID	BIASIDTypeBIASIDType	1	Y	A system unique identifier for a subject.
↑ EncounterID	BIASIDTypeBIASIDType	0..1	C	The identifier of an encounter associated with the subject. Required for encounter-centric models.
↑ BiographicData	BiographicDataTypeBiographicDataType	1	Y	An Identity's biographic data. One of the following elements MUST be present.

Field	Type	#	?	Meaning
↑ LastName	string	0..1	C	The last name of a subject.
↑ FirstName	string	0..1	C	The first name of a subject.
↑ BiographicDataItem	BiographicDataItem Type BiographicDataItem Type	0..*	C	A single biographic data element.
↑ BiographicDataSet	BiographicDataSet Type BiographicDataSet Type	0..1	C	A set of biographic data information.

675 Response Message

Field	Type	#	?	Meaning
UpdateBiographicDataResponse			Y	The response to an UpdateBiographicData operation.
↑ UpdateBiographicDataResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatus ResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCode ReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.

Formatted Table

Formatted Table

676 4.1.21 UpdateBiometricData

677 [UpdateBiometricDataRequest](#)

678 [UpdateBiometricDataResponse](#)

679 [UpdateBiometricDataRequest](#)

680 [UpdateBiometricDataResponse](#)

681 The UpdateBiometricData operation updates the biometric data for an existing subject record. The
682 operation includes an OPTIONAL parameter indicating if the new biometric sample should be merged
683 with the existing biometric sample. If this parameter is set to "False" or is not used in the request, the
684 operation replaces the existing biometric sample with the new biometric sample. In the encounter-centric
685 model, the encounter ID MUST be specified.

686 **Request Message**

Field	Type	#	?	Meaning
UpdateBiometricDataRequestUpdateBiometricData			Y	Updates a single biometric sample for a given subject record.
↑ UpdateBiometricDataRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "UpdateBiometricData".
↑ Identity	BIASIdentityBIASIdentity	1	Y	Identifies the subject or, in the encounter-centric model, a subject and an encounter, and includes the biometric data to update.
↑ SubjectID	BIASIDTypeBIASIDType	1	Y	A system unique identifier for a subject.
↑ EncounterID	BIASIDTypeBIASIDType	0..1	C	The identifier of an encounter associated with the subject. Required for encounter-centric models.
↑ BiometricData	BIASBiometricDataTypeBIASBiometricDataType	1	Y	An Identity's biometric data.
↑ BIR	CBEFF_BIR_TypeCBEFF_BIR_Type	1	Y	Contains biometric information in either a non-XML or an XML representation.
↑ Merge	boolean	0..1	N	Value indicating if the input biometric sample should be merged with any existing biometric information.

687 **Response Message**

Field	Type	#	?	Meaning
UpdateBiometricDataResponse			Y	The response to an UpdateBiometricData operation.
↑ UpdateBiometricDataResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.

Formatted Table

Formatted Table

688 **4.1.22 VerifySubject**

689 [VerifySubjectRequest](#)

690 [VerifySubjectResponse](#)

691 [VerifySubjectRequest](#)

692 [VerifySubjectResponse](#)

693 The VerifySubject operation performs a 1:1 verification match between a given biometric and either a
694 claim to identity in a given gallery or another given biometric. As such either the Identity Claim or
695 Reference BIR input parameters are REQUIRED.

696 **Request Message**

Field	Type	#	?	Meaning
VerifySubjectRequestVerifySubject			Y	Performs a 1:1 verification match between a given biometric and either a claim to identity in a given gallery or another given biometric.
↑ VerifySubjectRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParametersGenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.

Field	Type	#	?	Meaning
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "VerifySubject".
↑ GalleryID	BIASIDTypeBIASIDType	0..1	C	The identifier of the gallery or population group of which the subject must be a member. Required if an Identity Claim is provided.
↑ Identity	BIASIdentityBIASIdentity	1	Y	Includes the identifying information and/or input and reference biometric samples.
↑ IdentityClaim	BIASIDTypeBIASIDType	0..1	C	An identifier by which a subject is known to a particular gallery or population group. Required if a Reference BIR is not provided.
↑ BiometricData	BIASBiometricDataTypeBIASBiometricDataType	1	Y	An Identity's biometric data.
↑ InputBIR	CBEFF_BIR_TypeCBEFF_BIR_Type	1	Y	Maps to specific INCITS BIAS elements as required by that specification.
↑ ReferenceBIR	CBEFF_BIR_TypeCBEFF_BIR_Type	0..1	C	Maps to specific INCITS BIAS elements as required by that specification. Required if an Identity Claim is not provided.

697 Response Message

Field	Type	#	?	Meaning
VerifySubjectResponse			Y	The response to a VerifySubject operation.
↑ VerifySubjectResponsePackage		<u>1</u>	<u>Y</u>	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.

Formatted Table

Formatted Table

Field	Type	#	?	Meaning
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ Match	boolean	0..1	N	Indicates if the Input BIR matched either the biometric information associated with the Identity Claim or the Reference BIR.
↑ Score	ScoreScore	0..1	N	The score if the biometric information matched.

Formatted Table

4.2 Aggregate Operations

4.2.1 Enroll

[EnrollRequest](#)

[EnrollResponse](#)

[EnrollRequest](#)

[EnrollResponse](#)

The Enroll operation adds a new subject or, in an encounter-centric model, a new encounter to the system. This may be accomplished in a number of different ways according to system requirements and/or resources. If the Enroll operation is implemented as a synchronous service, the implementing system immediately processes the request and returns the results in the Return Data parameter. If the Enroll operation is implemented as an asynchronous service, the implementing system returns a token in the Return Data parameter, which is an indication that the request is being handled asynchronously. In this case, the [GetEnrollResults operation](#) is used to poll for the results of the Enroll request.

Request Message

Field	Type	#	?	Meaning
EnrollRequestEnroll			Y	Adds a new subject or, in an encounter-centric model, a new encounter to the system.
↑ EnrollRequest		1	Y	

Field	Type	#	?	Meaning
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "Enroll".
↑ ProcessingOptions	ProcessingOptionsTypeProcessingOptionsType	1	Y	Options that guide how the aggregate service request is processed.
↑ Option	string	0..*	N	An option supported by the implementing system.
↑ InputData	InformationTypeInformationType	1	Y	Contains the input data for the operation, as required by the implementing system.

713 Response Message

Field	Type	#	?	Meaning
EnrollResponse			Y	The response to an Enroll operation.
↑ EnrollResponsePackage		<u>1</u>	<u>Y</u>	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ ReturnData	InformationTypeInformationType	0..1	N	Contains the output data for the response.

Formatted Table

Formatted Table

714 4.2.2 GetEnrollResults

715 [GetEnrollResultsRequest](#)

716 [GetEnrollResultsResponse](#)

717 [GetEnrollResultsRequest](#)

Biasprofile-1.0-cd-01 20 October 2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

718 | [GetEnrollResultsResponse](#)

719 | The GetEnrollResults operation retrieves the enrollment results for the specified token. This operation is
 720 | used in conjunction with the [EnrollEnroll](#) operation. If the Enroll operation is implemented as an
 721 | asynchronous service, the implementing system returns a token and the GetEnrollResults operation is
 722 | used to poll for the results of the original Enroll request.

723 | If the service provider implements an asynchronous Enroll operation, then it MUST also implement the
 724 | GetEnrollResults operation.

725 | **Request Message**

Field	Type	#	?	Meaning
GetEnrollResultsRequestGetEnrollResults			Y	Retrieves the enrollment results for the specified token.
GetEnrollResultsRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParametersGenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "GetEnrollResults".
↑ Token	TokenTypeTokenType	1	Y	A value used to retrieve the results of the Enroll request.
↑ TokenValue	string	1	Y	A value returned by the implementing system that is used to retrieve the results to an operation at a later time.
↑ Expiration	date	1	Y	A date and time at which point the token expires and the operation results are no longer guaranteed to be available.

726 **Response Message**

Field	Type	#	?	Meaning
GetEnrollResultsResponse			Y	The response to a GetEnrollResults operation.
<u>↑ GetEnrollResultsResponsePackage</u>		<u>1</u>	<u>Y</u>	
<u>↑ ResponseStatus</u>	<u>ResponseStatusResponseStatus</u>	1	Y	Returned status for the operation.
<u>↑ Return</u>	<u>ReturnCodeReturnCode</u>	1	Y	The return code indicates the return status of the operation.
<u>↑ Message</u>	string	0..1	N	A short message corresponding to the return code.
<u>↑ ReturnData</u>	<u>InformationTypeInfoInformationType</u>	0..1	N	Contains the output data for the response.

Formatted Table

Formatted Table

727 **4.2.3 GetIdentifyResults**

728 GetIdentifyResultsRequest

729 GetIdentifyResultsResponse

730 GetIdentifyResultsRequest

731 GetIdentifyResultsResponse

732 The GetIdentifyResults operation retrieves the identification results for the specified token. This operation
733 is used in conjunction with the IdentifyIdentify operation. If the Identify operation is implemented as an
734 asynchronous service, the implementing system returns a token and the GetIdentifyResults operation is
735 used to poll for the results of the original Identify request.

736 If the service provider implements an asynchronous Identify operation, then it **MUST** also implement the
737 GetIdentifyResults operation.

738

739 **Request Message**

Field	Type	#	?	Meaning
<u>GetIdentifyResultsRequestGetIdentifyResults</u>			Y	Retrieves the identification results for the specified token
<u>↑ GetIdentifyResultsRequest</u>		<u>1</u>	<u>Y</u>	
<u>↑ GenericRequestParameters</u>	<u>GenericRequestParametersGenericRequestParameters</u>	0..1	N	Common request parameters that can be used to identify the requester.

Field	Type	#	?	Meaning
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "GetIdentifyResults".
↑ Token	TokenTypeTokenType	1	Y	A value used to retrieve the results of the Identify request.
↑ TokenValue	string	1	Y	A value returned by the implementing system that is used to retrieve the results to an operation at a later time.
↑ Expiration	date	1	Y	A date and time at which point the token expires and the operation results are no longer guaranteed to be available.

740 Response Message

Field	Type	#	?	Meaning
GetIdentifyResultsResponse			Y	The response to a GetIdentifyResults operation.
↑ GetIdentifyResultsResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ ReturnData	InformationTypeInformationType	0..1	N	Contains the output data for the response.

Formatted Table

Formatted Table

741 4.2.4 GetVerifyResults

742 [GetVerifyResultsRequest](#)

743 [GetVerifyResultsResponse](#)

744 [GetVerifyResultsRequest](#)

745 [GetVerifyResultsResponse](#)

746 The GetVerifyResults operation retrieves the verification results for the specified token. This operation is
 747 used in conjunction with the [VerifyVerify](#) operation. If the Verify operation is implemented as an
 748 asynchronous service, the implementing system returns a token and the GetVerifyResults operation is
 749 used to poll for the results of the original Verify request.

750 If the service provider implements an asynchronous [Verify_operationVerifyoperation](#), then it MUST also
 751 implement the GetVerifyResults operation.

752 Request Message

Field	Type	#	?	Meaning
GetVerifyResultsRequestGetVerifyResults			Y	Retrieves the verification results for the specified token
GetVerifyResultsRequest		1	Y	
GenericRequestParameters	GenericRequestParametersGenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "GetVerifyResults".
Token	TokenTypeTokenType	1	Y	A value used to retrieve the results of the Verify request.
TokenValue	string	1	Y	A value returned by the implementing system that is used to retrieve the results to an operation at a later time.
Expiration	date	1	Y	A date and time at which point the token expires and the operation results are no longer guaranteed

Field	Type	#	?	Meaning
				to be available.

753 **Response Message**

Field	Type	#	?	Meaning
GetVerifyResultsResponse			Y	The response to a GetVerifyResults operation.
GetVerifyResultsResponsePackage		1	Y	
ResponseStatus	ResponseStatus	1	Y	Returned status for the operation.
Return	ReturnCode	1	Y	The return code indicates the return status of the operation.
Message	string	0..1	N	A short message corresponding to the return code.
ReturnData	InformationType	0..1	N	Contains the output data for the response.
Match	boolean	0..1	N	Indicates if the Input BIR matched either the biometric information associated with the Identity Claim or the Reference BIR.
Score	Score	0..1	N	The score if the biometric information matched.

Formatted Table

Formatted Table

754 **4.2.5 Identify**

755 [IdentifyRequest](#)

756 [IdentifyResponse](#)

757 [IdentifyRequest](#)

758 [IdentifyResponse](#)

759 The Identify operation performs an identification function according to system requirements and/or
760 resources.-If the Identify operation is implemented as a synchronous service, the implementing system
761 immediately processes the request and returns the results in the Return Data parameter. If the Identify
762 operation is implemented as an asynchronous service, the implementing system returns a token in the
763 Return Data parameter, which is an indication that the request is being handled asynchronously. In this

764 | case, the [GetIdentifyResults](#) operation is used to poll for the results of the Identify
765 | request.

Formatted: Font: 10 pt

766 | **Request Message**

Field	Type	#	?	Meaning
IdentifyRequest			Y	Performs an identification function.
IdentifyRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "Identify".
↑ ProcessingOptions	ProcessingOptionsType	1	Y	Options that guide how the aggregate service request is processed.
↑ Option	string	0..*	N	An option supported by the implementing system.
↑ InputData	InformationType	1	Y	Contains the input data for the aggregate services.

767 | **Response Message**

Field	Type	#	?	Meaning
IdentifyResponse			Y	The response to an Identify operation.
↑ IdentifyResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.

Formatted Table

Formatted Table

Field	Type	#	?	Meaning
↑ ReturnData	InformationTypeInformationType	0..1	N	Contains the output data for the response.

Formatted Table

4.2.6 RetrieveInformation

[RetrieveInformationRequest](#)

[RetrieveInformationResponse](#)

[RetrieveInformationRequest](#)

[RetrieveInformationResponse](#)

The RetrieveInformation operation retrieves requested information about a subject, or in an encounter-centric model about an encounter. In a person-centric model, this operation can be used to retrieve both biographic and biometric information for a subject record. In an encounter-centric model, this operation can be used to retrieve biographic and/or biometric information for either a single encounter or all encounters. Either a subject ID or encounter ID MUST be specified.

Request Message

Field	Type	#	?	Meaning
RetrieveInformationRequest RetrieveInformation			Y	Retrieves requested information about a subject or encounter.
↑ RetrieveInformationRequest		1	Y	
↑ GenericRequestParameters	GenericRequestParameters GenericRequestParameters	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	ApplicationIdentifierApplicationIdentifier	0..1	N	Identifies the requesting application.
↑ ApplicationUser	ApplicationUserIdentifierApplicationUserIdentifier	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "RetrieveInformation".
↑ ProcessingOptions	ProcessingOptionsTypeProcessingOptionsType	1	Y	Options that guide how the aggregate service request is processed, and MAY identify what type(s) of information should be returned.
↑ Option	string	0..*	N	An option supported by the implementing system.

Field	Type	#	?	Meaning
↑ Identity	BIASIdentity	1	Y	Includes the identifier of the subject or encounter.
↑ SubjectID	BIASIDType	0..1	C	A system unique identifier for a subject. Required if an Encounter ID is not provided.
↑ EncounterID	BIASIDType	0..1	C	The identifier of an encounter associated with the subject. Required if a Subject ID is not provided.

779 **Response Message**

Field	Type	#	?	Meaning
RetrieveInformationResponse			Y	Response to a RetrieveInformation operation.
↑ RetrieveInformationResponsePackage		<u>1</u>	<u>Y</u>	
↑ ResponseStatus	ResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ ReturnData	InformationType	0..1	N	Contains the output data for the response.

Formatted Table

Formatted Table

780 **4.2.7 Verify**

781 [VerifyRequest](#)

782 [VerifyResponse](#)

783 [VerifyRequest](#)

784 [VerifyResponse](#)

785 The Verify operation performs a 1:1 verification function according to system requirements and/or
786 resources. Either the Identity Claim or Reference BIR input parameters are REQUIRED.-If the Verify
787 operation is implemented as a synchronous service, the implementing system immediately processes the
788 request and returns the results in the Return Data parameter. If the Verify operation is implemented as an

789 asynchronous service, the implementing system returns a token in the Return Data parameter, which is
 790 an indication that the request is being handled asynchronously. In this case, the
 791 GetVerifyResults operation is used to poll for the results of the Verify request.

Formatted: Font: 10 pt

792 Request Message

Field	Type	#	?	Meaning
<u>VerifyRequest</u>			Y	Performs a 1:1 verification function.
↑ <u>VerifyRequest</u>		1	Y	
↑ GenericRequestParameters	<u>GenericRequestParameters</u>	0..1	N	Common request parameters that can be used to identify the requester.
↑ Application	<u>ApplicationIdentifier</u>	0..1	N	Identifies the requesting application.
↑ ApplicationUser	<u>ApplicationUserIdentifier</u>	0..1	N	Identifies the user or instance of the requesting application.
↑ BIASOperationName	string	0..1	N	Identifies the BIAS operation that is being requested: "Verify".
↑ ProcessingOptions	<u>ProcessingOptionsType</u>	1	Y	Options that guide how the aggregate service request is processed.
↑ Option	string	0..*	N	An option supported by the implementing system.
↑ InputData	<u>InformationType</u>	1	Y	Contains the input data for the aggregate services.
↑ Identity	<u>BIASIdentity</u>	1	Y	Includes either the Identity Claim or Reference BIR.
↑ IdentityClaim	<u>BIASIDType</u>	0..1	C	An identifier by which a subject is known to a particular gallery or population group. Required if a Reference BIR is not provided.
↑ BiometricData	<u>BIASBiometricDataType</u>	0..1	N	An Identity's biometric data.

Field	Type	#	?	Meaning
↑ ReferenceBIR	CBEFF_BIR_TypeCBEFF_BIR_Type	0..1	C	Maps to specific INCITS BIAS elements as required by that specification. Required if an Identity Claim is not provided.
↑ GalleryID	BIASIDTypeBIASIDType	0..1	C	The identifier of the gallery or population group of which the subject must be a member. Required if an Identity Claim is provided.

793 **Response Message**

Field	Type	#	?	Meaning
VerifyResponse			Y	The response to a Verify operation.
↑ VerifyResponsePackage		1	Y	
↑ ResponseStatus	ResponseStatusResponseStatus	1	Y	Returned status for the operation.
↑ Return	ReturnCodeReturnCode	1	Y	The return code indicates the return status of the operation.
↑ Message	string	0..1	N	A short message corresponding to the return code.
↑ ReturnData	InformationTypeInformationType	0..1	N	Contains the output data for the response.
↑ Match	boolean	0..1	N	Indicates if the Input BIR matched either the biometric information associated with the Identity Claim or the Reference BIR.
↑ Score	ScoreScore	0..1	N	The score if the biometric information matched.

Formatted Table

Formatted Table

794

5 Message structure and rules

BIAS operations and data elements are defined in XML in the INCITS 422 BIAS standard. This OASIS standard further specifies the full XML schema (see [Annex A](#)) and specifies how this XML is packaged and exchanged as SOAP messages.

[Annex A](#) provides a WSDL of operations and structures aggregated from all the conformance classes, both synchronous and asynchronous. A specific implementation's WSDL must only expose its respective operations and structures. For example, for a Class 5-only conformant implementation, all of the primitive operations must not be exposed as operations (with the exception of QueryCapabilities) unless that functionality is supported. Additionally, the WSDL exposed by an implementation shall not contain instances of `xsd:any`, `xsd:anyType`, or `xsd:anyAttribute`; these instances must be replaced with explicit schema contents. An example is the XML complex type, `InformationType`, which has `xsd:any` as its only child. This type is used to represent implementation-specific input data and return data. The children of `InformationType` must be replaced with explicit content. Doing so removes the ability to transmit unexpected or arbitrary data. Also, it provides a clear definition of information that a client needs to provide to the server, or expect to receive, to optimally perform an operation.

SOAP 1.1 messages consist of three elements: an envelope, header data, and a message body. BIAS request-response elements MUST be enclosed within the SOAP message body. The general structure of the BIAS SOAP message is shown in Figure 4, below. The data model for BIAS is addressed in [Section 3](#) and BIAS messages in Section 4.

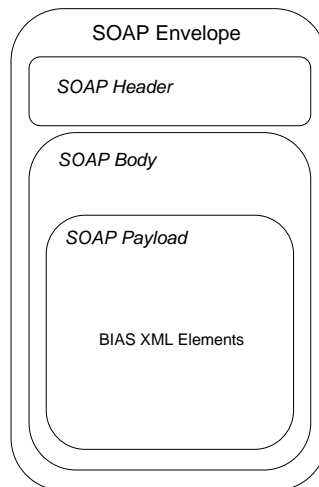


Figure 4. BIAS SOAP Structure

Biometric data, regardless of native format, is carried as a binary structure. As such, options exist on how this data is carried within the SOAP structure. It can be carried as embedded Base-64 objects or [XOP](#) can be used – this standard allows for either method (See section 5.3).

821 **5.1 Purpose and constraints**

822 This document defines a SOAP profile describing how the XML elements defined in INCITS 442 are to be
823 used as the payload of a SOAP message and the rules for structuring and exchanging such messages.
824 Philosophical tenets include:

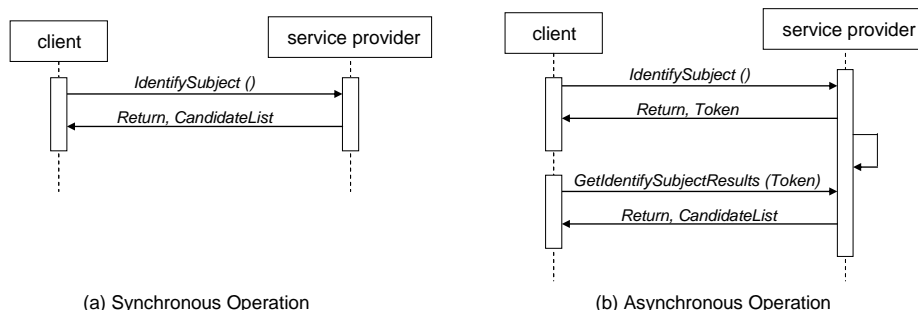
- 825 • SOAP messages will carry BIAS XML ~~[XML 10]~~[XML 10] payloads.
- 826 • SOAP messages will follow WS-I and will deviate only when absolutely necessary.
- 827 • Message structures and interchanges will be kept as simple as possible – “nice to have”
828 features will be addressed in future revisions.
- 829 • XML schemas will be produced based on INCITS 442.
- 830 • BIAS will support a broad range of application domains.
- 831 • BIAS will allow for a variety of biometric and biographic data formats to be used
- 832 • Only the SOAP messaging will be defined – no message protocols or client/server agents
833 will be defined.
- 834 • Basic usage/formatting rules (beyond WS-I) will be defined.
- 835 • Existing biometric and Web services standards will be leveraged wherever possible.
- 836 • Sample WSDL and use cases will be provided as an aid in implementation.
- 837 • Use of basic SOAP will allow all other compatible WS* standards (and discovery
838 mechanisms) to be used in conjunction with BIAS messaging.
- 839 • BIAS will support both secure (i.e., using existing security mechanisms such as WS-
840 Security, SAML, etc.) and non-secure implementations.
- 841 • Generic biometric operations will be defined – use of biometrics within a Web services
842 authentication protocol is not addressed.
- 843 • OASIS namespace rules will be followed, though some external schemas MAY also be
844 referenced.

845 **5.2 Message requirements**

846 BIAS SOAP messages MUST conform to ~~[WS-I-Basic] and [WS-I-Bind]~~[WS-I-Basic] and [WS-I-Bind]. A
847 single BIAS SOAP message MUST contain only one BIAS service request (or single BIAS service
848 response). Binary components of BIAS messages are already Base-64 encoded and therefore do not
849 need to be conveyed as SOAP attachments (though XOP MAY be utilized).

850 The system model used for BIAS conversations over SOAP is a simple request-response model. BIAS
851 comprises both synchronous and asynchronous operations, with the majority being of the former type.
852 Asynchronous operations are implemented through message pairs. That is, there are separate messages
853 to request the operation and to request the results of the operation. These have been defined for those
854 operations that are likely to take significant time to complete. For example, an identify operation can be
855 implemented as either a synchronous or asynchronous service as follows:

Formatted: Font: Not Bold



(a) Synchronous Operation

(b) Asynchronous Operation

Figure 5. Example of Synchronous and Asynchronous BIAS Operations

The basic process for using SOAP for BIAS operations is:

1. A system entity acting as a BIAS requester transmits a BIAS request element within the body of a SOAP message to a system entity acting as a BIAS responder. The BIAS requester MUST NOT include more than one BIAS request per SOAP message or include any additional XML elements in the SOAP body.
2. The BIAS responder MUST return either a BIAS response element within the body of another SOAP message or generate a SOAP fault. The BIAS responder MUST NOT include more than one BIAS response per SOAP message or include any additional XML elements in the SOAP body. If a BIAS responder cannot, for some reason, process a BIAS request, it MUST generate a SOAP fault. (SOAP 1.1 faults and fault codes are discussed in [SOAP11] section 5.1.)
3. On receiving a BIAS response in a SOAP message, the BIAS requester MUST NOT send a fault code or other error messages to the BIAS responder. Since the format for the message interchange is a simple request-response pattern, adding additional items such as error conditions would needlessly complicate the protocol.

SOAP 1.1 also defines an optional data encoding system. This system is not used within the BIAS SOAP binding. This means that BIAS messages can be transported using SOAP without re-encoding from the "standard" BIAS schema to one based on the SOAP encoding.

NOTE: [SOAP11] references an early draft of the XML Schema specification including an obsolete namespace. BIAS requesters SHOULD generate SOAP documents referencing only the final XML schema namespace. BIAS responders MUST be able to process both the XML schema namespace used in [SOAP11] as well as the final XML schema namespace.

5.3 Handling binary data

BIAS messages frequently contain binary data (e.g., biometric data, scanned identity documents, etc.). Two methods are provided for dealing with this:

- Embedded Base64 encoding

• ~~XOP [XOP]~~

• XOP [XOP]

Use of SOAP with Attachments (SWA) is deprecated.

890 **5.3.1 Base64 encoding**

891 This method is the default method for including binary data. Binary data is Base64 encoded and included
892 between the tags in the XML SOAP body for the appropriate data elements. Data elements using this
893 method are indicated as such in the schema.

894 As an example, the CBEFF_BIR_Type includes, as one of the BIR types, BinaryBIR of type
895 base64binary.

896
897 `<xsd:element name="BinaryBIR" type="xs:base64Binary" />`
898

899 However, even an XML_BIR as defined within [CBEFF][CBEFF] Part 3, contains a biometric data block
900 (BDB) which may be entirely binary (most common),

901
902 `<xs:element name="bdb" type="xs:base64Binary" minOccurs="0"/>`
903

904 or contain an element which is binary (e.g., an image within an XML BDB).

905 **5.3.2 Use of XOP**

906 When XOP is used, the binary content is replaced with a reference (URI) to an attachment (i.e., MIME)
907 which contains that "stripped" content via an xop:include. The advantage of this method is overall
908 message size during transmission since the overhead of the embedded Base64 is not present (since the
909 MIME attachment contains the native binary format).

910 Use of XOP is generally transparent to the developer, other than in how they configure their toolset. Most
911 frameworks support this; however, there is a possibility of mismatch if the transmitter supports and uses
912 XOP but the receiver does not.

913 **5.4 Discovery**

914 BIAS implementers (service providers) MUST provide WSDL [WSDL14][WSDL11] to describe their
915 implementations. This WSDL MAY or may not be made public via a standard discovery mechanism
916 (such as UDDI) or other method.

917 In addition, it is REQUIRED that the BIAS implementation include the QueryCapabilitiesQueryCapabilities
918 operation to provide dynamic information regarding BIAS capabilities, options, galleries, etc. that are
919 supported.

920 **5.5 Identifying operations**

921 Receivers of BIAS SOAP messages require a method of easily identifying the operation being requested
922 (or response being provided). This SHOULD be possible without the receiver needing to infer it from the
923 sum of the elements provided within the body of the SOAP message. The BIAS SOAP profile allows for
924 two methods of identifying BIAS operations:

- 925
 - Explicit named element in body of the SOAP message
 - Use of WS-Addressing Action element

927 **5.5.1 Operation name element**

928 The BIAS message sender (requester) will include within the body of the BIAS SOAP message an XML
929 element <BIASOperationName>. The receiver (service provider) can search for this tag within a received
930 BIAS SOAP message to determine what operation is being requested. There is no requirement related to
931 the ordering of this element within the message, though it is RECOMMENDED that it be included early in
932 the message to aid in human readability.

Formatted: Tab stops: 3.35", Left
Formatted: Default Paragraph Font, Font: 10 pt

933 An example of this method for the CreateSubject operation is shown below:

934

935 POST /bias HTTP/1.1

936 Host: www.acme.com

937 Host: www.acme.com

938 Content-Type: application/soap+xml; charset="utf-8"

939 Content-Length: nnnn

940 SOAPAction: ""

941 <?xml version="1.0"?>

942 <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">

943 <soap:Body>

944 <tns:CreateSubjectRequest

945 xmlns:tns="http://docs.oasis-open.org/bias/bias-1.0/">

946 <tns:GenericRequestParameters>

947 <tns:Application>BIAS Application</tns:Application>

948 <tns:ApplicationUser>BIAS User</tns:ApplicationUser>

949 <tns:BIASOperationName>CreateSubject</tns:BIASOperationName

950 >

951 </tns:GenericRequestParameters>

952 <tns:Identity>

953 <tns:SubjectID>123456789</tns:SubjectID>

954 </tns:Identity>

955 </tns:CreateSubjectRequest>

956 </soap:Body>

957 </soap:Envelope>

958 5.5.2 WS-Addressing Action

959 WS-Addressing ~~WS-Addr~~[\[WS-Addr\]](#) provides a mechanism for including action information inside any
960 SOAP message. The information is in the SOAP Header. The WS-Addressing 'Action' element is used
961 to indicate the intent of the message. The value is a URI/IRI identifying that intent; however, there are no
962 restrictions on the format or specificity of the URI/~~IRI nor IRI~~[nor IRI](#) nor a requirement that it can be resolved.
963 Adoption of this option also requires that the WS-Addressing 'To', 'ReplyTo', and 'MessageID' elements
964 are supplied, as they are mandatory elements in a request-reply message pattern as used within BIAS.
965 Response messages would also need to use WS-Addressing, requiring the 'To' (matching the 'ReplyTo'
966 element in the request), 'RelatesTo' (matching the 'MessageID' element in the request), and
967 'RelationshipType' (default value to "wsa:Reply") elements.

968 Use of WS-Addressing is OPTIONAL in this profile as is this method of using the 'Action' field for this
969 purpose. However, when BIAS is used within an environment using WS-Addressing, it is
970 RECOMMENDED that this approach for use of the 'Action' field to carry the BIAS operation name is
971 employed, either alone or in combination with the BIASOperationName approach described in section
972 5.4.1.

973 An example for a message request for the CreateSubject operation would look ~~like the~~[like the](#) following:

974

975 POST /bias HTTP/1.1

976 Host: www.acme.com

```

977 | Host: www.acme.com
978 | Content-Type: application/soap+xml; charset="utf-8"
979 | Content-Length: nnnn
980 | SOAPAction: ""
981 | <?xml version="1.0"?>
982 | <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
983 |               xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addr
984 |               essing">
985 |     <soap:Header>
986 |       <wsa:MessageID>some-ID</wsa:MessageID>
987 |       <wsa:ReplyTo>
988 |         <wsa:Address>response-URI</wsa:Address>
989 |       </wsa:ReplyTo>
990 |       <wsa:To>destination-URI</wsa:To>
991 |       <wsa:Action>CreateSubject</wsa:Action>
992 |     </soap:Header>
993 |     <soap:Body>
994 |       <tns:CreateSubjectRequest
995 |
996 |       xmlns:tns="http://docs.oasis-open.org/bias/bias-1.0/" />
997 |     </soap:Body>
998 | </soap:Envelope>
999 |

```

1000 | 5.6 -Security

1001 | The end-points that exchange SOAP messages (or handle the contents of the BIAS operations) are
1002 | expected to be protected and trusted such that message-level security mechanisms may not be required.
1003 | The use of SSL (HTTPS) or VPN technology that provides end-point to end-point security is
1004 | RECOMMENDED and MAY be sufficient in some cases. Other mechanisms such as Signed XML or
1005 | WSS ~~[WSS]~~[WSS] could also be implemented.
1006 | Unless stated otherwise, the following security statements apply to all BIAS bindings.

1007 | 5.6.1 Use of SSL 3.0 or TLS 1.0

1008 | Unless otherwise specified, in any BIAS binding's use of SSL 3.0 ~~[SSL3]~~[SSL3] or TLS1.0
1009 | ~~[RFC2246]~~[RFC2246], servers MUST authenticate clients using a X.509 v3 certificate ~~[X509]~~[X509].
1010 | The client MUST establish server identity based on contents of the certificate (typically through
1011 | examination of the certificate's subject DN field, subjectAltName attribute, etc.).
1012 | Use of transport level security in the form of SSL or TLS is OPTIONAL but highly RECOMMENDED. Use
1013 | of these mechanisms alone may not be sufficient for end-to-end integrity and confidentiality, however
1014 | (see 5.5.3 and 5.5.4 below).

1015 | 5.6.2 Data Origin Authentication

1016 | Authentication of both the BIAS requester and the BIAS responder associated with a message is
1017 | OPTIONAL and depends on the environment of use: Authentication mechanisms available at the SOAP
1018 | message exchange layer or from the underlying substrate protocol (for example, in many bindings the
1019 | SSL/TLS or HTTP protocol) MAY be utilized to provide data origin authentication.

Formatted: Font: Not Bold

Formatted: Font: Not Bold, Font color:
Custom Color(RGB(0,0,204))

1020 Transport authentication will not meet end-to-end origin authentication requirements in bindings where
1021 the BIAS SOAP message passes through an intermediary – in this case, message authentication is
1022 RECOMMENDED.

1023 | Note that SAML ~~[SAML]~~[SAML] MAY be used as the mechanism for parties to authenticate to one
1024 another.

1025 5.6.3 Message Integrity

1026 Message integrity of both BIAS requests and BIAS responses is OPTIONAL and depends on the
1027 environment of use. The security layer in the underlying substrate protocol or a mechanism at the SOAP
1028 message exchange layer MAY be used to ensure message integrity.

1029 Transport integrity will not meet end-to-end integrity requirements in bindings where the BIAS SOAP
1030 message passes through an intermediary – in this case, message integrity is RECOMMENDED.

1031 5.6.4 Message Confidentiality

1032 Message confidentiality of both BIAS requests and BIAS responses is OPTIONAL and depends on the
1033 environment of use. The security layer in the underlying substrate protocol or a mechanism at the SOAP
1034 message exchange layer MAY be used to ensure message confidentiality.

1035 Transport confidentiality will not meet end-to-end confidentiality requirements in bindings where the BIAS
1036 SOAP message passes through an intermediary.

1037 NOTE: Biometric and biographic data is likely to contain personal information the confidentiality of
1038 which SHOULD be protected accordingly. See INCITS 442, section 6.3 for further discussion.

1039 5.6.5 CBEFF BIR security features

1040 Within BIAS, biometric data is transferred within a CBEFF BIR (as defined in ISO/IEC 19785-1). CBEFF
1041 provides for the optional encryption of the Biometric Data Block (BDB) of the BIR and for the integrity of
1042 the entire BIR. If implemented, this is indicated in the BIR header. The BIR structure defines an optional
1043 Security Block which MAY contain a digital signature (or message authentication code), encryption
1044 parameters (e.g., key name, algorithm, etc.), and/or other security related data. Such protections are
1045 associated with an individual BIR and are separate from any other protections provided at the message
1046 level.

1047 5.6.6 Security Considerations

1048 Before deployment, each combination of authentication, message integrity, and confidentiality
1049 mechanisms SHOULD be analyzed for vulnerability in the context of the specific protocol exchange and
1050 the deployment environment.

1051 Special care should be given to the impact of possible caching on security.

1052 | IETF RFC 2617 ~~[RFC2617]~~[RFC2617] describes possible attacks in the HTTP environment when basic or
1053 message digest authentication schemes are used.

1054 | Many of the security considerations identified in ~~[SAML-SEC]~~[SAML SEC] MAY also apply.

1055 | ISO/IEC 19092 ~~[BIO-SEC]~~[BIO SEC] describes a security framework for biometric systems including a
1056 minimum set of security requirements addressing integrity, authenticity, and confidentiality of biometric
1057 information during transmission and storage. These SHOULD be considered as part of an overall risk
1058 management approach.

1059 NOTE: The requirements of ISO/IEC 19092, though useful across many application domains, are
1060 required for most biometric system implementations in the financial services environment.
1061 Application of this standard would make the requirements of sections 5.5.3 through 5.5.5
1062 mandatory rather than optional. This is highly RECOMMENDED for any high security environment
1063 or where privacy concerns exist.

1064 **5.6.7 Security of Stored Data**

1065 This specification does not address security considerations for stored data. It is the purview of the BIAS

1066 service provider to implement security mechanisms and protect data at rest as per their own security

1067 policies.

1068 **5.6.8 Key Management**

1069 This specification does not address key management considerations with respect to implementation of

1070 cryptographic security mechanisms (e.g., for authenticity, integrity, or confidentiality).

1071 **5.7 Use with other WS* standards**

1072 The intent of specifying SOAP bindings for BIAS messages is to enable the full range of existing Web

1073 services standards to be able to be applied. Some may be normative while others can be optionally

1074 applied (i.e., WS-Security, WS-Addressing). Still others may require additional profiling to be used in an

1075 interoperable manner (e.g., WS-Notification); this is left to a future revision. However, the intent is to avoid

1076 specifying anything in the first, base version that would preclude the use of such standards in the future.

1077 **5.8 Tailoring**

1078 This standard provides for a common method of implementing biometric Web services; however, it does

1079 not guarantee interoperability in a specific application. In some cases further tailoring or profiling of this

1080 standard may be required in order to further constrain the implementation options available.

1081 NOTE: As an example, BIAS allows for a number of different biographic and biometric data formats

1082 to be used, whereas a given application/domain MAY wish to limit this to a small set or just one of

1083 each type. Other examples (not comprehensive) include:

- 1084 • Identification of a subset of BIAS operations to be used
- 1085 • Specification of security features to be implemented (e.g., SSL, CBEFF BIR encryption, etc.)
- 1086 • Choice of operation name identification method
- 1087 • Choice of BIR type to be used (XML, non-XML, or URI)
- 1088 • Further definition of aggregate operations
- 1089 • Use (or not) of the encounter model
- 1090 • Use (or not) of asynchronous operations
- 1091 • Process sequences
- 1092 • Implementation specific values (e.g., Transform operations/controls)

1093
1094
1095
1096
1097
1098
1099
1100
1101
1102
1103

1104
1105
1106
1107
1108

1109
1110
1111
1112
1113
1114
1115
1116
1117
1118
1119
1120
1121

6 Error handling

There are two levels of errors that can be returned in an error response: system and service errors.

- System-level errors occur when the implementing system cannot service a request. They could result due to an internal logic error or because the implementing system does not support a particular request.
- Service-level errors occur when there is a problem transmitting or representing the service request. They could result due to an invalid service request or because of a communications error.

The INCITS BIAS standard defines the error condition codes for system-level errors.

- If successful, a response message (containing a return code) will be generated.
- If unsuccessful, a SOAP fault message (containing a fault code) will be generated.

6.1 BIAS operation return codes

If a BIAS operation is successful, a response (service output) will be sent to the requester by the service provider. Each response message contains a response status (see section 3.2.37) and return code (see section 3.2.38) along with any response data as defined for that operation, if any. A response code of '0' indicates success.

6.2 SOAP fault codes

If a BIAS operation is unsuccessful, no BIAS response message is sent. Instead a SOAP fault message is returned.

Every Web service (operation) described in the BIAS WSDL may result in a fault message that will be returned in the response by the service provider in the event of an error. The fault message contains a FaultCode element as defined by the SOAP 1.1 specification (see section 3.2.5). The fault message MUST contain a Detail element in a common format, as described by the BIASFault element (see section 3.2.6).

The schema provided in Annex A defines "BIASFaultCode" and "BIASFaultDetail" types as well as "BIASFault", "BIASFaultType", "BIASFaultMessage" and "BIASFaultDescription" elements.

The list of defined BIAS fault codes is provided in section 3.2.5. Note that BIAS service providers MAY define additional fault codes unique to their service.

NOTE: See also section 5.2 for additional information on message returns and faults.

1122
1123
1124
1125
1126
1127
1128
1129
1130
1131
1132
1133
1134
1135
1136
1137
1138
1139
1140

7 Conformance

Implementations claiming conformance to this standard, MUST implement, at a minimum, all mandatory requirements and provisions set forth in Clauses 3, 4, 5 and 6. If such implementations claim conformance to any OPTIONAL requirements and provisions stated in Clauses 3, 4, 5 and 6, these requirements and provisions MUST be implemented as set forth in these Clauses.

~~INCITS 442 [INCIS-BIAS]~~INCITS 442 [INCITS-BIAS] (Annex A) specifies five BIAS conformance classes. For each class, a set of mandatory BIAS operations is identified in order for implementations (BIAS service providers) to claim conformance. These categories are:

- Class 1: Full Primitive Services Implementation
- Class 2: Full Aggregate Services Implementation
- Class 3: Limited Primitive Services Implementation
- Class 4: Minimum Primitive Services Implementation
- Class 5: Minimum Aggregate Services Implementation

In addition, the minimum capability information to be returned in response to a Query Capabilities request (the only mandatory BIAS operation across all 5 classes) is specified for each class.

These conformance classes and their associated requirements apply to this BIAS SOAP Profile.

There are no minimum set of operations required to be implemented by BIAS requesters; however, any operations implemented must conform to the requirements of Clauses 3 and 4 and those requirements within Clause 5 that are mandatory and are not specific to BIAS responders.

1141
1142
1143
1144
1145
1146
1147
1148
1149
1150
1151
1152
1153
1154
1155
1156
1157
1158
1159
1160
1161
1162
1163
1164
1165
1166
1167
1168
1169
1170
1171
1172
1173
1174
1175
1176
1177
1178

Annex A.-XML Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<!--
Document : BIAS.xml
Created on : December 17, 2009, 9:31 AM
Last Edit : December 6, 2010 by Kevin Mangold, National Institute of Standards and Technology
Description:
This document represents the WSDL definitions of BIAS Profile.
-->
<wsdl:definitions
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:iso-iec19785-3-7="urn:oid:1.1.19785.0.257.1.7.0"
xmlns:tns="http://docs.oasis-open.org/bias/ns/bias-1.0/" targetNamespace="http://docs.oasis-open.org/bias/ns/bias-1.0/"
- targetNamespace="http://docs.oasis-open.org/bias/ns/bias-1.0/">
<wsdl:types>
- <xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified"
targetNamespace="http://docs.oasis-open.org/bias/ns/bias-1.0/">
- <xsd:import namespace="urn:oid:1.1.19785.0.257.1.7.0" schemaLocation="cbeff.xsd" />
<xsd:complexType name="AggregateRequestTemplate" abstract="true">
- <xsd:annotation>
- <xsd:documentation>Base template for BIAS aggregate service requests.</xsd:documentation>
- </xsd:annotation>
- <xsd:complexContent>
- <xsd:extension base="tns:RequestTemplate">
- <xsd:sequence>
- <xsd:element name="ProcessingOptions" type="tns:ProcessingOptionsType" minOccurs="1" maxOccurs="1">
- <xsd:annotation>
- <xsd:documentation>Options that guide how the aggregate service request is
processed.</xsd:documentation>
- </xsd:annotation>
- </xsd:element>
```

Formatted: Space Before: 4 pt, After: 4 pt, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

1179 ~~——~~<xsd:element name="InputData" type="tns:InformationType" minOccurs="1" maxOccurs="1">
 1180 ~~——~~<xsd:annotation>
 1181 ~~——~~<xsd:documentation>Contains the input data for the aggregate service request.</xsd:documentation>
 1182 ~~——~~</xsd:annotation>
 1183 ~~——~~</xsd:element>
 1184 ~~——~~</xsd:sequence>
 1185 ~~——~~</xsd:extension>
 1186 ~~——~~</xsd:complexContent>
 1187 ~~——~~</xsd:complexType>
 1188 ~~——~~<xsd:complexType name="AggregateResponseTemplate" ~~abstract="true"~~>
 1189 ~~——~~<xsd:annotation>
 1190 ~~——~~<xsd:documentation>Base template for BIAS aggregate service responses.</xsd:documentation>
 1191 ~~——~~</xsd:annotation>
 1192 ~~——~~<xsd:complexContent>
 1193 ~~——~~<xsd:extension base="tns:ResponseTemplate">
 1194 ~~——~~<xsd:sequence>
 1195 ~~——~~<xsd:element name="ReturnData" type="tns:InformationType" minOccurs="0" maxOccurs="1">
 1196 ~~——~~<xsd:annotation>
 1197 ~~——~~<xsd:documentation>Contains the output data for the aggregate service response.</xsd:documentation>
 1198 ~~——~~</xsd:annotation>
 1199 ~~——~~</xsd:element>
 1200 ~~——~~</xsd:sequence>
 1201 ~~——~~</xsd:extension>
 1202 ~~——~~</xsd:complexContent>
 1203 ~~——~~</xsd:complexType>
 1204 ~~——~~<xsd:simpleType name="ApplicationIdentifier">
 1205 ~~——~~<xsd:annotation>
 1206 ~~——~~<xsd:documentation>Identifies an application.</xsd:documentation>
 1207 ~~——~~</xsd:annotation>
 1208 ~~——~~<xsd:restriction base="xsd:string">
 1209 ~~——~~<xsd:minLength value="1" ~~"/>~~>
 1210 ~~——~~<xsd:maxLength value="255" ~~"/>~~>
 1211 ~~——~~</xsd:restriction>
 1212 ~~——~~</xsd:simpleType>
 1213 ~~——~~<xsd:simpleType name="ApplicationUserIdentifier">
 1214 ~~——~~<xsd:annotation>
 1215 ~~——~~<xsd:documentation>Identifies an application user or instance.</xsd:documentation>
 1216 ~~——~~</xsd:annotation>
 1217 ~~——~~<xsd:restriction base="xsd:string">

Biasprofile-1.0-cd-01 20-October-2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

1218 ~~<xsd:minLength value="1"/>~~
1219 ~~<xsd:maxLength value="255"/>~~
1220 ~~</xsd:restriction>~~
1221 ~~</xsd:simpleType>~~
1222 ~~<xsd:complexType name="BIASBiometricDataType">~~
1223 ~~<xsd:annotation>~~
1224 ~~<xsd:documentation>Wraps the various BIAS biometric types.</xsd:documentation>~~
1225 ~~</xsd:annotation>~~
1226 ~~<xsd:sequence>~~
1227 ~~<xsd:element name="BIRList" type="tns:CBEFF_BIR_ListType" minOccurs="0" maxOccurs="1">~~
1228 ~~<xsd:annotation>~~
1229 ~~<xsd:documentation>A list of CBEFF-BIR elements.</xsd:documentation>~~
1230 ~~</xsd:annotation>~~
1231 ~~</xsd:element>~~
1232 ~~<xsd:element name="BIR" type="tns:CBEFF_BIR_Type" minOccurs="0" maxOccurs="1">~~
1233 ~~<xsd:annotation>~~
1234 ~~<xsd:documentation>Contains biometric information in either a non-XML and an XML~~
1235 ~~representation.</xsd:documentation>~~
1236 ~~</xsd:annotation>~~
1237 ~~</xsd:element>~~
1238 ~~<xsd:element name="InputBIR" type="tns:CBEFF_BIR_Type" minOccurs="0" maxOccurs="1">~~
1239 ~~<xsd:annotation>~~
1240 ~~<xsd:documentation>Maps to specific INCITS BIAS elements as required by that~~
1241 ~~specification.</xsd:documentation>~~
1242 ~~</xsd:annotation>~~
1243 ~~</xsd:element>~~
1244 ~~<xsd:element name="ReferenceBIR" type="tns:CBEFF_BIR_Type" minOccurs="0" maxOccurs="1">~~
1245 ~~<xsd:annotation>~~
1246 ~~<xsd:documentation>Maps to specific INCITS BIAS elements as required by that~~
1247 ~~specification.</xsd:documentation>~~
1248 ~~</xsd:annotation>~~
1249 ~~</xsd:element>~~
1250 ~~<xsd:element name="BiometricDataList" type="tns:BiometricDataListType" minOccurs="0" maxOccurs="1">~~
1251 ~~<xsd:annotation>~~
1252 ~~<xsd:documentation>A list of biometric data elements.</xsd:documentation>~~
1253 ~~</xsd:annotation>~~
1254 ~~</xsd:element>~~
1255 ~~</xsd:sequence>~~
1256 ~~</xsd:complexType>~~
1257 ~~<xsd:simpleType name="BIASFaultCode">~~

~~Biasprofile-1.0-cd-01~~ ~~20-October-2009~~

~~biasprofile-v1.0-csd03~~ ~~23 February 2011~~

~~Copyright © OASIS Open 2009-2011. All Rights Reserved.~~ ~~Standards Track Work Product~~

1258 <xsd:annotation>
1259 <xsd:documentation></></xsd:documentation>
1260 </xsd:annotation>
1261 <xsd:restriction base="xsd:unsignedLongstring">
1262 <xsd:enumeration value="UNKNOWN_ERROR">
1263 <xsd:annotation>
1264 <xsd:documentation>The service failed for an unknown reason.</xsd:documentation>
1265 </xsd:annotation>
1266 </xsd:enumeration>
1267 <xsd:enumeration value="UNSUPPORTED_CAPABILITY">
1268 <xsd:annotation>
1269 <xsd:documentation>A requested capability is not supported by the service
1270 implementation.</xsd:documentation>
1271 </xsd:annotation>
1272 </xsd:enumeration>
1273 <xsd:enumeration value="INVALID_INPUT">
1274 <xsd:annotation>
1275 <xsd:documentation>The data in a service input parameter is invalid.</xsd:documentation>
1276 </xsd:annotation>
1277 </xsd:enumeration>
1278 <xsd:enumeration value="BIR_QUALITY_ERROR">
1279 <xsd:annotation>
1280 <xsd:documentation>Biometric sample quality is too poor for the service to succeed.</xsd:documentation>
1281 </xsd:annotation>
1282 </xsd:enumeration>
1283 <xsd:enumeration value="INVALID_BIR">
1284 <xsd:annotation>
1285 <xsd:documentation>The input BIR is empty or in an invalid or unrecognized format.</xsd:documentation>
1286 </xsd:annotation>
1287 </xsd:enumeration>
1288 <xsd:enumeration value="BIR_SIGNATURE_FAILURE">
1289 <xsd:annotation>
1290 <xsd:documentation>The service could not validate the signature, if used, on the input
1291 BIR.</xsd:documentation>
1292 </xsd:annotation>
1293 </xsd:enumeration>
1294 <xsd:enumeration value="BIR_DECRYPTION_FAILURE">
1295 <xsd:annotation>
1296 <xsd:documentation>The service could not decrypt an encrypted input BIR.</xsd:documentation>
1297 </xsd:annotation>

Formatted: English (U.S.)

Formatted: English (U.S.)

Formatted: English (U.S.)

1298 </xsd:enumeration>
 1299 <xsd:enumeration value="INVALID_ENCOUNTER_ID">
 1300 <xsd:annotation>
 1301 <xsd:documentation>The input encounter ID is empty or in an invalid format.</xsd:documentation>
 1302 </xsd:annotation>
 1303 </xsd:enumeration>
 1304 <xsd:enumeration value="INVALID_SUBJECT_ID">
 1305 <xsd:annotation>
 1306 <xsd:documentation>The input subject ID is empty or in an invalid format.</xsd:documentation>
 1307 </xsd:annotation>
 1308 </xsd:enumeration>
 1309 <xsd:enumeration value="UNKNOWN_SUBJECT">
 1310 <xsd:annotation>
 1311 <xsd:documentation>The subject referenced by the input subject ID does not exist.</xsd:documentation>
 1312 </xsd:annotation>
 1313 </xsd:enumeration>
 1314 <xsd:enumeration value="UNKNOWN_GALLERY">
 1315 <xsd:annotation>
 1316 <xsd:documentation>The gallery referenced by the input gallery ID does not exist.</xsd:documentation>
 1317 </xsd:annotation>
 1318 </xsd:enumeration>
 1319 <xsd:enumeration value="UNKNOWN_ENCOUNTER">
 1320 <xsd:annotation>
 1321 <xsd:documentation>The encounter referenced by the input encounter ID does not
 1322 exist.</xsd:documentation>
 1323 </xsd:annotation>
 1324 </xsd:enumeration>
 1325 <xsd:enumeration value="UNKNOWN_BIOGRAPHIC_FORMAT">
 1326 <xsd:annotation>
 1327 <xsd:documentation>The biographic data format is not known or not supported.</xsd:documentation>
 1328 </xsd:annotation>
 1329 </xsd:enumeration>
 1330 <xsd:enumeration value="UNKNOWN_IDENTITY_CLAIM">
 1331 <xsd:annotation>
 1332 <xsd:documentation>The identity referenced by the input identity claim does not exist.</xsd:documentation>
 1333 </xsd:annotation>
 1334 </xsd:enumeration>
 1335 <xsd:enumeration value="INVALID_IDENTITY_CLAIM">
 1336 <xsd:annotation>

1337 <xsd:documentation>The identity claim requested is already in use.</xsd:documentation>
1338 </xsd:annotation>
1339 </xsd:enumeration>
1340 <xsd:enumeration value="NONEXISTANT_DATA">
1341 <xsd:annotation>
1342 <xsd:documentation>The data requested for deletion does not exist.</xsd:documentation>
1343 </xsd:annotation>
1344 </xsd:enumeration>
1345 </xsd:restriction>
1346 </xsd:simpleType>
1347 <xsd:complexType name="BIASFaultDetail">
1348 <xsd:annotation>
1349 <xsd:documentation>Defines the error information associated with a SOAP fault.</xsd:documentation>
1350 </xsd:annotation>
1351 <xsd:sequence>
1352 <xsd:element minOccurs="1" maxOccurs="1" name="BIASFaultType" type="tns:BIASFaultCode">
1353 <xsd:annotation>
1354 <xsd:documentation>References an error code.</xsd:documentation>
1355 </xsd:annotation>
1356 </xsd:element>
1357 <xsd:element minOccurs="1" maxOccurs="1" name="BIASFaultMessage" type="xsd:string">
1358 <xsd:annotation>
1359 <xsd:documentation>Provides an explanation of the fault.</xsd:documentation>
1360 </xsd:annotation>
1361 </xsd:element>
1362 <xsd:element minOccurs="0" maxOccurs="1" name="BIASFaultDescription" type="xsd:string">
1363 <xsd:annotation>
1364 <xsd:documentation>Provides detailed information about a BIAS fault, such as trace
1365 details.</xsd:documentation>
1366 </xsd:annotation>
1367 </xsd:element>
1368 </xsd:sequence>
1369 </xsd:complexType>
1370 <xsd:complexType name="BIASIdentity">
1371 <xsd:annotation>
1372 <xsd:documentation>
1373 Defines a single element for encapsulating the data associated
1374 with an Identity. Includes the Identity's reference identifiers,
1375 biographic data, and biometric data.

1376 </xsd:documentation>
1377 </xsd:annotation>
1378 <xsd:sequence>
1379 <xsd:element name="SubjectID" type="tns:BIASIDType" minOccurs="0" maxOccurs="1">
1380 <xsd:annotation>
1381 <xsd:documentation>A system unique identifier for a subject.</xsd:documentation>
1382 </xsd:annotation>
1383 </xsd:element>
1384 <xsd:element name="IdentityClaim" type="tns:BIASIDType" minOccurs="0" maxOccurs="1">
1385 <xsd:annotation>
1386 <xsd:documentation>An identifier by which a subject is known to a particular gallery or population
1387 group.</xsd:documentation>
1388 </xsd:annotation>
1389 </xsd:element>
1390 <xsd:element name="EncounterID" type="tns:BIASIDType" minOccurs="0" maxOccurs="1">
1391 <xsd:annotation>
1392 <xsd:documentation>The identifier of an encounter associated with the subject, required for encounter-
1393 centric models.</xsd:documentation>
1394 </xsd:annotation>
1395 </xsd:element>
1396 <xsd:element name="EncounterList" type="tns:EncounterListType" minOccurs="0" maxOccurs="1">
1397 <xsd:annotation>
1398 <xsd:documentation>A list of encounters associated with a subject.</xsd:documentation>
1399 </xsd:annotation>
1400 </xsd:element>
1401 <xsd:element name="BiographicData" type="tns:BiographicDataType" minOccurs="0" maxOccurs="1">
1402 <xsd:annotation>
1403 <xsd:documentation>An Identity's biographic data.</xsd:documentation>
1404 </xsd:annotation>
1405 </xsd:element>
1406 <xsd:element name="BiographicDataElements" type="tns:BiographicDataType" minOccurs="0" maxOccurs="1">
1407 <xsd:annotation>
1408 <xsd:documentation>An Identity's biographic data elements that are stored in the implementing
1409 system.</xsd:documentation>
1410 </xsd:annotation>
1411 </xsd:element>
1412 <xsd:element name="BiometricData" type="tns:BIASBiometricDataType" minOccurs="0" maxOccurs="1">
1413 <xsd:annotation>
1414 <xsd:documentation>An Identity's biometric data.</xsd:documentation>
1415 </xsd:annotation>

Biasprofile-1.0-cd-01 20-October-2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. — Standards Track Work Product

1416 ~~—</xsd:element>~~
 1417 ~~—</xsd:sequence>~~
 1418 ~~—</xsd:complexType>~~
 1419 ~~—<xsd:simpleType name="BIASIDType">~~
 1420 ~~—<xsd:annotation>~~
 1421 ~~—<xsd:documentation>A BIAS identifier</xsd:documentation>~~
 1422 ~~—</xsd:annotation>~~
 1423 ~~—<xsd:restriction base="xsd:string" ~~"/>/>~~>~~
 1424 ~~—</xsd:simpleType>~~
 1425 ~~—<xsd:complexType name="BiographicDataItemType">~~
 1426 ~~—<xsd:annotation>~~
 1427 ~~—<xsd:documentation>Defines a single biographic data element.</xsd:documentation>~~
 1428 ~~—</xsd:annotation>~~
 1429 ~~—<xsd:sequence ~~maxOccurs="unbounded">>~~>~~
 1430 ~~—<xsd:element name="Name" type="xsd:string" minOccurs="1" maxOccurs="1">~~
 1431 ~~—<xsd:annotation>~~
 1432 ~~—<xsd:documentation>The name of the biographic data item.</xsd:documentation>~~
 1433 ~~—</xsd:annotation>~~
 1434 ~~—</xsd:element>~~
 1435 ~~—<xsd:element name="Type" type="xsd:string" minOccurs="1" maxOccurs="1">~~
 1436 ~~—<xsd:annotation>~~
 1437 ~~—<xsd:documentation>The data type for the biographic data item.</xsd:documentation>~~
 1438 ~~—</xsd:annotation>~~
 1439 ~~—</xsd:element>~~
 1440 ~~—<xsd:element name="Value" type="xsd:string" minOccurs="0" maxOccurs="1">~~
 1441 ~~—<xsd:annotation>~~
 1442 ~~—<xsd:documentation>The value assigned to the biographic data item.</xsd:documentation>~~
 1443 ~~—</xsd:annotation>~~
 1444 ~~—</xsd:element>~~
 1445 ~~—</xsd:sequence>~~
 1446 ~~—</xsd:complexType>~~
 1447 ~~—<xsd:complexType name="BiographicDataSetType">~~
 1448 ~~—<xsd:annotation>~~
 1449 ~~—<xsd:documentation>Defines a set of biographic data that is formatted according to the specified~~
 1450 ~~format.</xsd:documentation>~~
 1451 ~~—</xsd:annotation>~~
 1452 ~~—<xsd:sequence>~~
 1453 ~~—<xsd:any namespace="##any">~~
 1454 ~~—<xsd:annotation>~~
 1455 ~~—<xsd:documentation>Biographic data formatted according to a specific format.</xsd:documentation>~~

Formatted: English (U.S.)

Formatted: English (U.S.)

1456 ~~—</xsd:annotation>~~
1457 ~~—</xsd:any>~~
1458 ~~—</xsd:sequence>~~
1459 ~~—<xsd:attributeelement name="name" type="xsd:string" use="required" minOccurs="1" maxOccurs="1">~~
1460 ~~—<xsd:annotation>~~
1461 ~~—<xsd:documentation>The name of the biographic data format. Use these names for common formats: FBI-EFTS,~~
1462 ~~FBI-EBTS, DOD-EBTS, INT-I, NIEM, xNAL, HR-XML.</xsd:documentation>~~
1463 ~~—</xsd:annotation>~~
1464 ~~—</xsd:attributeelement>~~
1465 ~~—<xsd:attributeelement name="version" type="xsd:string" use="optional" minOccurs="0" maxOccurs="1">~~
1466 ~~—<xsd:annotation>~~
1467 ~~—<xsd:documentation>The version of the biographic data format (e.g., "7.1" for FBI-EFTS or "2.0" for~~
1468 ~~NIEM).</xsd:documentation>~~
1469 ~~—</xsd:annotation>~~
1470 ~~—</xsd:attributeelement>~~
1471 ~~—<xsd:attributeelement name="source" type="xsd:string" use="required" minOccurs="1" maxOccurs="1">~~
1472 ~~—<xsd:annotation>~~
1473 ~~—<xsd:documentation>Reference to a URI/IRI describing the biographic data format. For example: (FBI-EFTS)~~
1474 ~~www.fbi.biospecs.org, (DOD-EBTS) www.biometrics.dod.mil, (INT-I) www.interpol.int, www.interpol.int, (NIEM)~~
1475 ~~www.niem.gov, (xNAL) www.oasis-open.org, (HR-XML) www.hr-xml.org.</xsd:documentation>~~
1476 ~~—</xsd:annotation>~~
1477 ~~—</xsd:attributeelement>~~
1478 ~~—<xsd:attributeelement name="type" type="xsd:string" use="required" minOccurs="1" maxOccurs="1">~~
1479 ~~—<xsd:annotation>~~
1480 ~~—<xsd:documentation>The biographic data format type. Use these types for common formats: ASCII (e.g., for~~
1481 ~~non-XML versions of FBI-EFTS, FBI-EBTS, DOD-EFTS, or INT-I), XML (e.g., for NIEM, xNAL, and HR-XML or future version~~
1482 ~~of FBI-EBTS).</xsd:documentation>~~
1483
1484 ~~</xsd:annotation>~~
1485 ~~—</xsd:attributeelement>~~
1486 ~~—<xsd:any namespace="##any">~~
1487 ~~<xsd:annotation>~~
1488 ~~<xsd:documentation>Biographic data formatted according to a specific format.</xsd:documentation>~~
1489 ~~</xsd:annotation>~~
1490 ~~</xsd:any>~~
1491 ~~</xsd:sequence>~~
1492 ~~</xsd:complexType>~~
1493 ~~—<xsd:complexType name="BiographicDataType">~~
1494 ~~—<xsd:annotation>~~
1495 ~~—<xsd:documentation>~~
1496 ~~—Defines a set of biographic data elements, utilizing either the~~

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

1497 ———BiographicDataItem type to represent a list of elements or the
1498 ———BiographicDataSet type to represent a complete, formatted set of
1499 ———biographic information.
1500 ———</xsd:documentation>
1501 ———</xsd:annotation>
1502 ———<xsd:choice maxOccurs="unbounded">
1503 ———<xsd:sequence>
1504 <xsd:element name="LastName" type="xsd:string" minOccurs="0" maxOccurs="1">
1505 ———<xsd:annotation>
1506 ———<xsd:documentation>The last name of a subject.</xsd:documentation>
1507 ———</xsd:annotation>
1508 ———</xsd:element>
1509 ———<xsd:element name="FirstName" type="xsd:string" minOccurs="0" maxOccurs="1">
1510 ———<xsd:annotation>
1511 ———<xsd:documentation>The first name of a subject.</xsd:documentation>
1512 ———</xsd:annotation>
1513 ———</xsd:element>
1514 ———<xsd:element name="BiographicDataItems" minOccurs="0">
1515 <xsd:complexType>
1516 <xsd:sequence>
1517 <xsd:element name="BiographicDataItem" type="tns:BiographicDataItem type" maxOccurs="unbounded">
1518 ———<xsd:annotation>
1519 ———<xsd:documentation>A single biographic data element.</xsd:documentation>
1520 ———</xsd:annotation>
1521 ———</xsd:element>
1522 ———</xsd:sequence>
1523 </xsd:complexType>
1524 </xsd:element>
1525 <xsd:element name="BiographicDataSet" type="tns:BiographicDataSetType" minOccurs="0" maxOccurs="1">
1526 ———<xsd:annotation>
1527 ———<xsd:documentation>A set of biographic data information.</xsd:documentation>
1528 ———</xsd:annotation>
1529 ———</xsd:element>
1530 ———</xsd:choice>
1531 ———</xsd:sequence>
1532 ———</xsd:complexType>
1533 ———<xsd:complexType name="BiometricDataElementType">
1534 ———<xsd:annotation>
1535 ———<xsd:documentation>
1536 ———Provides descriptive information about biometric data, such as

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

1536 — the biometric type, subtype, and format, contained in the BDB of
 1537 — the CBEFF-BIR.
 1538 — </xsd:documentation>
 1539 — </xsd:annotation>
 1540 — <xsd:sequence>
 1541 — <xsd:element name="BiometricType" type="iso-iec19785-3-7: ~~Multiple types~~MultipleTypesType" minOccurs="1"
 1542 maxOccurs="1">
 1543 — <xsd:annotation>
 1544 — <xsd:documentation>The type of biological or behavioral data stored in the biometric record, as defined by
 1545 CBEFF.</xsd:documentation>
 1546 — </xsd:annotation>
 1547 — </xsd:element>
 1548 — <xsd:element name="BiometricTypeCount" type="xsd:positiveInteger" minOccurs="0" maxOccurs="1">
 1549 — <xsd:annotation>
 1550 — <xsd:documentation>The number of biometric records having the biometric type recorded in the biometric
 1551 type field.</xsd:documentation>
 1552 — </xsd:annotation>
 1553 — </xsd:element>
 1554 — <xsd:element name="BiometricSubType" type="iso-iec19785-3-7: ~~Subtype~~SubtypeType" minOccurs="0"
 1555 maxOccurs="1">
 1556 — <xsd:annotation>
 1557 — <xsd:documentation>More specifically defines the type of biometric data stored in the biometric record, as
 1558 defined by CBEFF.</xsd:documentation>
 1559 — </xsd:annotation>
 1560 — </xsd:element>
 1561 — <xsd:element name="BDBFormatOwner" type="iso-iec19785-3-7: ~~Registered int~~xsd:positiveInteger"
 1562 minOccurs="1" maxOccurs="1">
 1563 — <xsd:annotation>
 1564 — <xsd:documentation>Identifies the standards body, working group, industry consortium, or other CBEFF
 1565 biometric organization that has defined the format for the biometric data.</xsd:documentation>
 1566 — </xsd:annotation>
 1567 — </xsd:element>
 1568 — <xsd:element name="BDBFormatType" type="iso-iec19785-3-7: ~~Registered int~~xsd:positiveInteger"
 1569 minOccurs="1" maxOccurs="1">
 1570 — <xsd:annotation>
 1571 — <xsd:documentation>Identifies the specific biometric data format specified by the CBEFF biometric
 1572 organization recorded in the BDB Format Owner field.</xsd:documentation>
 1573 — </xsd:annotation>
 1574 — </xsd:element>
 1575 — </xsd:sequence>
 1576 — </xsd:complexType>

Biasprofile-1.0-cd-01 20-October-2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

1577 <xsd:complexType name="BiometricDataListType">
1578 <xsd:annotation>
1579 <xsd:documentation>A list of biometric data elements.</xsd:documentation>
1580 </xsd:annotation>
1581 <xsd:sequence>
1582 <xsd:element name="BiometricDataElement" type="tns:BiometricDataElementType" minOccurs="0"
1583 maxOccurs="unbounded">
1584 <xsd:annotation>
1585 <xsd:documentation>Data structure containing information about a biometric record.</xsd:documentation>
1586 </xsd:annotation>
1587 </xsd:element>
1588 </xsd:sequence>
1589 </xsd:complexType>
1590 <xsd:complexType name="CandidateListType">
1591 <xsd:annotation>
1592 <xsd:documentation>
1593 Defines a set of candidates, utilizing the Candidate Type to
1594 represent each element in the set.
1595 </xsd:documentation>
1596 </xsd:annotation>
1597 <xsd:sequence>
1598 <xsd:element name="Candidate" type="tns:CandidateType" minOccurs="0" maxOccurs="unbounded">
1599 <xsd:annotation>
1600 <xsd:documentation>A single candidate.</xsd:documentation>
1601 </xsd:annotation>
1602 </xsd:element>
1603 </xsd:sequence>
1604 </xsd:complexType>
1605 <xsd:complexType name="CandidateType">
1606 <xsd:annotation>
1607 <xsd:documentation>
1608 Defines a single candidate as a possible match in response to a
1609 biometric identification request.
1610 </xsd:documentation>
1611 </xsd:annotation>
1612 <xsd:sequence>
1613 <xsd:element name="Score" type="tns:Score" minOccurs="0" maxOccurs="1">
1614 <xsd:annotation>
1615 <xsd:documentation>The match score.</xsd:documentation>

```

1616 | </xsd:annotation>
1617 | </xsd:element>
1618 | <xsd:element name="BiographicDataRank" type="tns:BiographicDataTypexsd:integer" minOccurs="0"
1619 | maxOccurs="1">
1620 | <xsd:annotation>
1621 | <xsd:documentation>Biographic data associated with the candidate match.</xsd:documentation>
1622 | </xsd:annotation>
1623 | </xsd:element>
1624 | <xsd:element name="BIRList" type="tns:CBEFF_BIR_ListType" minOccurs="1" maxOccurs="1">
1625 | <xsd:annotation>
1626 | <xsd:documentation>Biometric data associated with the candidate match.</xsd:documentation>
1627 | </xsd:annotation>
1628 | </xsd:element>
1629 | </xsd:sequence>
1630 | <xsd:attribute name="rank" type="xsd:integer" use="required">
1631 | <xsd:annotation>
1632 | <xsd:documentation>The rank of the candidate in relation to other candidates for the same biometric
1633 | identification operation.</xsd:documentation>
1634 | </xsd:annotation>
1635 | </xsd:attributeelement>
1636 | <xsd:element name="BiographicData" type="tns:BiographicDataType" minOccurs="0" maxOccurs="1">
1637 | <xsd:annotation>
1638 | <xsd:documentation>Biographic data associated with the candidate match.</xsd:documentation>
1639 | </xsd:annotation>
1640 | </xsd:element>
1641 | <xsd:element name="BIRList" type="tns:CBEFF_BIR_ListType" minOccurs="1" maxOccurs="1">
1642 | <xsd:annotation>
1643 | <xsd:documentation>Biometric data associated with the candidate match.</xsd:documentation>
1644 | </xsd:annotation>
1645 | </xsd:element>
1646 | </xsd:sequence>
1647 | </xsd:complexType>
1648 | <xsd:complexType name="CapabilityListType">
1649 | <xsd:annotation>
1650 | <xsd:documentation>Defines a set of capabilities.</xsd:documentation>
1651 | </xsd:annotation>
1652 | <xsd:sequence>
1653 | <xsd:element name="Capability" type="tns:CapabilityType" minOccurs="0" maxOccurs="unbounded">
1654 | <xsd:annotation>
1655 | <xsd:documentation>A single capability.</xsd:documentation>
1656 | </xsd:annotation>
1657 | </xsd:element>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

1658 `</xsd:sequence>`
 1659 `</xsd:complexType>`
 1660 `<xsd:simpleType name="CapabilityName">`
 1661 `<xsd:annotation>`
 1662 `<xsd:documentation>A list of capability items.</xsd:documentation>`
 1663 `</xsd:annotation>`
 1664 `<xsd:restriction base="xsd:string">`
 1665 `<xsd:enumeration value="AggregateInputDataOptional">`
 1666 `<xsd:annotation>`
 1667 `<xsd:documentation>A data element accepted as optional input by the implementing system for the`
 1668 `aggregate services.</xsd:documentation>`
 1669 `</xsd:annotation>`
 1670 `</xsd:enumeration>`
 1671 `<xsd:enumeration value="AggregateInputDataRequired">`
 1672 `<xsd:annotation>`
 1673 `<xsd:documentation>A data element required as input by the implementing system for the aggregate`
 1674 `services.</xsd:documentation>`
 1675 `</xsd:annotation>`
 1676 `</xsd:enumeration>`
 1677 `<xsd:enumeration value="AggregateProcessingOption">`
 1678 `<xsd:annotation>`
 1679 `<xsd:documentation>A processing option supported by the implementing system for the aggregate`
 1680 `services.</xsd:documentation>`
 1681 `</xsd:annotation>`
 1682 `</xsd:enumeration>`
 1683 `<xsd:enumeration value="AggregateReturnData">`
 1684 `<xsd:annotation>`
 1685 `<xsd:documentation>A data element returned by the implementing system for the aggregate`
 1686 `services.</xsd:documentation>`
 1687 `</xsd:annotation>`
 1688 `</xsd:enumeration>`
 1689 `<xsd:enumeration value="AggregateServiceDescription">`
 1690 `<xsd:annotation>`
 1691 `<xsd:documentation>Describes the processing logic of an aggregate service supported by the implementing`
 1692 `system.</xsd:documentation>`
 1693 `</xsd:annotation>`
 1694 `</xsd:enumeration>`
 1695 `<xsd:enumeration value="BiographicDataSet">`
 1696 `<xsd:annotation>`
 1697 `<xsd:documentation>Identifies a biographic data set supported by the implementing`
 1698 `system.</xsd:documentation>`

[Biasprofile-1.0-cd-01](#) [20 October 2009](#)

[biasprofile-v1.0-csd03](#) [23 February 2011](#)

Copyright © OASIS Open 2009-2011. All Rights Reserved. — [Standards Track Work Product](#)
 Page 111 of 200

1699 </xsd:annotation>
1700 </xsd:enumeration>
1701 <xsd:enumeration value="CBEFFPatronFormat">
1702 <xsd:annotation>
1703 <xsd:documentation>A patron format supported by the implementing system.</xsd:documentation>
1704 </xsd:annotation>
1705 </xsd:enumeration>
1706 <xsd:enumeration value="ClassificationAlgorithmType">
1707 <xsd:annotation>
1708 <xsd:documentation>A classification algorithm type supported by the implementing
1709 system.</xsd:documentation>
1710 </xsd:annotation>
1711 </xsd:enumeration>
1712 <xsd:enumeration value="ConformanceClass">
1713 <xsd:annotation>
1714 <xsd:documentation>Identifies the conformance class of the BIAS implementation.</xsd:documentation>
1715 </xsd:annotation>
1716 </xsd:enumeration>
1717 <xsd:enumeration value="Gallery">
1718 <xsd:annotation>
1719 <xsd:documentation>A gallery or population group supported by the implementing
1720 system.</xsd:documentation>
1721 </xsd:annotation>
1722 </xsd:enumeration>
1723 <xsd:enumeration value="IdentityModel">
1724 <xsd:annotation>
1725 <xsd:documentation>Identifies whether the implementing system is person-centric or encounter-centric
1726 based.</xsd:documentation>
1727 </xsd:annotation>
1728 </xsd:enumeration>
1729 <xsd:enumeration value="MatchScore">
1730 <xsd:annotation>
1731 <xsd:documentation>Identifies the use of match scores returned by the implementing
1732 system.</xsd:documentation>
1733 </xsd:annotation>
1734 </xsd:enumeration>
1735 <xsd:enumeration value="QualityAlgorithm">
1736 <xsd:annotation>
1737 <xsd:documentation>A quality algorithm vendor and algorithm vendor product ID supported by the
1738 implementing system.</xsd:documentation>

Formatted: Font: Calibri

1739 —</xsd:annotation>
 1740 —</xsd:enumeration>
 1741 —<xsd:enumeration value="SupportedBiometric">
 1742 —<xsd:annotation>
 1743 —<xsd:documentation>A biometric type supported by the implementing system.</xsd:documentation>
 1744 —</xsd:annotation>
 1745 —</xsd:enumeration>
 1746 —<xsd:enumeration value="TransformOperation">
 1747 —<xsd:annotation>
 1748 —<xsd:documentation>A transform operation type supported by the implementing
 1749 system.</xsd:documentation>
 1750 —</xsd:annotation>
 1751 —</xsd:enumeration>
 1752 —</xsd:restriction>
 1753 —</xsd:simpleType>
 1754 —<xsd:complexType name="CapabilityType">
 1755 —<xsd:annotation>
 1756 —<xsd:documentation>Defines a single capability supported by an implementing system.</xsd:documentation>
 1757 —</xsd:annotation>
 1758 —<xsd:sequence>
 1759 —<xsd:element name="CapabilityName" type="tns:CapabilityName" minOccurs="1" maxOccurs="1">
 1760 —<xsd:annotation>
 1761 —<xsd:documentation>The name of the capability.</xsd:documentation>
 1762 —</xsd:annotation>
 1763 —</xsd:element>
 1764 —<xsd:element name="CapabilityID" type="xsd:string" minOccurs="0" maxOccurs="1">
 1765 —<xsd:annotation>
 1766 —<xsd:documentation>An identifier assigned to the capability by the implementing
 1767 system.</xsd:documentation>
 1768 —</xsd:annotation>
 1769 —</xsd:element>
 1770 —<xsd:element name="CapabilityDescription" type="xsd:string" minOccurs="0" maxOccurs="1">
 1771 —<xsd:annotation>
 1772 —<xsd:documentation>A description of the capability.</xsd:documentation>
 1773 —</xsd:annotation>
 1774 —</xsd:element>
 1775 —<xsd:element name="CapabilityValue" type="xsd:string" minOccurs="0" maxOccurs="1">
 1776 —<xsd:annotation>
 1777 —<xsd:documentation>A value assigned to the capability.</xsd:documentation>
 1778 —</xsd:annotation>

[Biasprofile-1.0-cd-01](#) [20-October-2009](#)

[biasprofile-v1.0-csd03](#) [23 February 2011](#)

Copyright © OASIS Open 2009-2011. All Rights Reserved. — [Standards Track Work Product](#)

```

1779 </xsd:element>
1780 <xsd:element name="CapabilitySupportingValue" type="xsd:string" minOccurs="0" maxOccurs="1">
1781 <xsd:annotation>
1782 <xsd:documentation>A secondary value supporting the capability.</xsd:documentation>
1783 </xsd:annotation>
1784 </xsd:element>
1785 <xsd:element name="CapabilityAdditionalInfo" type="xsd:string" minOccurs="0" maxOccurs="1">
1786 <xsd:annotation>
1787 <xsd:documentation>Contains additional information for the supported capability.</xsd:documentation>
1788 </xsd:annotation>
1789 </xsd:element>
1790 </xsd:sequence>
1791 </xsd:complexType>
1792 <xsd:complexType name="CBEFF_BIR_ListType">
1793 <xsd:annotation>
1794 <xsd:documentation>A list of CBEFF-BIR elements.</xsd:documentation>
1795 </xsd:annotation>
1796 <xsd:sequence>
1797 <xsd:element name="BIR" type="tns:CBEFF_BIR_Type" minOccurs="0" maxOccurs="unbounded">
1798 <xsd:annotation>
1799 <xsd:documentation>CBEFF structure containing information about a biometric sample.</xsd:documentation>
1800 </xsd:annotation>
1801 </xsd:element>
1802 </xsd:sequence>
1803 </xsd:complexType>
1804 <xsd:complexType name="CBEFF_BIR_Type">
1805 <xsd:annotation>
1806 <xsd:documentation>Represents biometric information, with either a non-XML or XML
1807 representation.</xsd:documentation>
1808 </xsd:annotation>
1809 <xsd:sequence>
1810 <xsd:element name="FormatOwner" type="xsd:positiveInteger" minOccurs="1" maxOccurs="1" />
1811 <xsd:element name="FormatType" type="xsd:positiveInteger" minOccurs="1" maxOccurs="1" />
1812 <xsd:element name="BIR_Information" minOccurs="0" maxOccurs="1">
1813 <xsd:complexType>
1814 <xsd:sequence>
1815 <xsd:element name="bir-infoBIR_Info" type="iso-iec19785-3-7:BIR-infoBIRInfoType" minOccurs="0"
1816 maxOccurs="1"/>
1817 <xsd:element name="bdb-infoBDB_Info" type="iso-iec19785-3-7:BDB-infoBDBInfoType" minOccurs="0"
1818 maxOccurs="1"/>

```

Formatted: Font: Calibri

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

1819 | ————<xsd:element name="sb-infoSB Info" type="iso-iec19785-3-7:SB infoSBInfoType" minOccurs="0"
1820 | maxOccurs="1"/>
1821 | ————</xsd:sequence>
1822 | ————</xsd:complexType>
1823 | ————</xsd:element>
1824 | ————<xsd:element name="BIR" minOccurs="1" maxOccurs="1">type="tns:BaseBIRType" />
1825 | ————<</xsd:sequence>
1826 | </xsd:complexType>
1827 | ————<xsd:choice minOccurs="1" maxOccurs="1">
1828 | ————<<xsd:complexType name="BaseBIRType">
1829 | </xsd:elementcomplexType>
1830 | <xsd:complexType name="BinaryBIR">
1831 | <xsd:complexContent>
1832 | <xsd:extension base="tns:BaseBIRType">
1833 | <xsd:sequence>
1834 | <xsd:element name="Binary" type="*xsd:base64Binary" />
1835 | ————<</xsd:elementsequence>
1836 | </xsd:extension>
1837 | </xsd:complexContent>
1838 | </xsd:complexType>
1839 | <xsd:complexType name="URI_BIR">
1840 | <xsd:complexContent>
1841 | <xsd:extension base="tns:BaseBIRType">
1842 | <xsd:sequence>
1843 | <xsd:element name="URI" type="*xsd:anyURI" />
1844 | ————<</xsd:elementsequence>
1845 | </xsd:extension>
1846 | </xsd:complexContent>
1847 | </xsd:complexType>
1848 | <xsd:complexType name="XML_BIR">
1849 | <xsd:complexContent>
1850 | <xsd:extension base="tns:BaseBIRType">
1851 | <xsd:sequence>
1852 | <xsd:element name="XML" type="iso-iec19785-3-7:BIRBIRType" />
1853 | ————</xsd:choicesequence>
1854 | ————</xsd:extension>
1855 | </xsd:complexContent>
1856 | </xsd:complexType>
1857 | ————</xsd:element>
1858 | ————</xsd:sequence>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

1859 <xsd:attribute name="format_owner" type="iso-iec19785-3-7:Registered-int" use="required" />
1860 <xsd:attribute name="format_type" type="iso-iec19785-3-7:Registered-int" use="required" />
1861 </xsd:complexType>
1862 <xsd:simpleType name="Classification">
1863 <xsd:annotation>
1864 <xsd:documentation>The result of a classification.</xsd:documentation>
1865 </xsd:annotation>
1866 <xsd:restriction base="xsd:string"/>
1867 </xsd:simpleType>
1868 <xsd:simpleType name="ClassificationAlgorithmType">
1869 <xsd:annotation>
1870 <xsd:documentation>Type of classification algorithm that was used to perform the
1871 classification.</xsd:documentation>
1872 </xsd:annotation>
1873 <xsd:restriction base="xsd:string"/>
1874 </xsd:simpleType>
1875 <xsd:complexType name="ClassificationData">
1876 <xsd:annotation>
1877 <xsd:documentation>Contains information on classification results and the algorithm used to determine the
1878 classification.</xsd:documentation>
1879 </xsd:annotation>
1880 <xsd:sequence>
1881 <xsd:element name="Classification" type="tns:Classification" minOccurs="1" maxOccurs="1">
1882 <xsd:annotation>
1883 <xsd:documentation>The result of the classification.</xsd:documentation>
1884 </xsd:annotation>
1885 </xsd:element>
1886 <xsd:element name="ClassificationAlgorithmType" type="tns:ClassificationAlgorithmType" minOccurs="1"
1887 maxOccurs="1">
1888 <xsd:annotation>
1889 <xsd:documentation>Identifies the type of classification algorithm that was used to perform the
1890 classification.</xsd:documentation>
1891 </xsd:annotation>
1892 </xsd:element>
1893 </xsd:sequence>
1894 </xsd:complexType>
1895 <xsd:complexType name="EncounterListType">
1896 <xsd:annotation>
1897 <xsd:documentation>Defines a set of encounters.</xsd:documentation>
1898 </xsd:annotation>
1899 <xsd:sequence>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: English (U.S.)

Formatted: English (U.S.)

Formatted: English (U.S.)

1900 <xsd:element name="EncounterID" type="tns:BIASIDType" minOccurs="0" maxOccurs="unbounded">

1901 <xsd:annotation>

1902 <xsd:documentation>The identifier of an encounter.</xsd:documentation>

1903 </xsd:annotation>

1904 </xsd:element>

1905 </xsd:sequence>

1906 </xsd:complexType>

1907 <xsd:complexType name="FusionInformationListType">

1908 <xsd:annotation>

1909 <xsd:documentation>

1910 Contains at a minimum two sets of fusion input

1911 elements, as input to the PerformFusion request.

1912 </xsd:documentation>

1913 </xsd:annotation>

1914 <xsd:sequence>

1915 <xsd:element name="FusionElement" type="tns:FusionInformationType" minOccurs="2"

1916 maxOccurs="unbounded">

1917 <xsd:annotation>

1918 <xsd:documentation>A set of fusion information.</xsd:documentation>

1919 </xsd:annotation>

1920 </xsd:element>

1921 </xsd:sequence>

1922 </xsd:complexType>

1923 <xsd:complexType name="FusionInformationType">

1924 <xsd:annotation>

1925 <xsd:documentation>Represents the information necessary to perform a fusion

1926 operation.</xsd:documentation>

1927 </xsd:annotation>

1928 <xsd:sequence>

1929 <xsd:element name="BiometricType" type="iso-iec19785-3-7:MultipleTypesMultipleTypesType" minOccurs="1"

1930 maxOccurs="1">

1931 <xsd:annotation>

1932 <xsd:documentation>The type of biological or behavioral data stored in the biometric record, as defined by

1933 CBEFF.</xsd:documentation>

1934 </xsd:annotation>

1935 </xsd:element>

1936 <xsd:element name="BiometricSubType" type="iso-iec19785-3-7:SubtypeSubtypeType" minOccurs="0"

1937 maxOccurs="1">

1938 <xsd:annotation>

1939 <xsd:documentation>More specifically defines the type of biometric data stored in the biometric

1940 record.</xsd:documentation>

Biasprofile-1.0-cd-01 20-October-2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

1941 </xsd:annotation>
1942 </xsd:element>
1943 <xsd:element name="AlgorithmOwner" type="xsd:string" minOccurs="1" maxOccurs="1">
1944 <xsd:annotation>
1945 <xsd:documentation>The owner or vendor of the algorithm used to determine the score or
1946 decision.</xsd:documentation>
1947 </xsd:annotation>
1948 </xsd:element>
1949 <xsd:element name="AlgorithmType" type="xsd:string" minOccurs="1" maxOccurs="1">
1950 <xsd:annotation>
1951 <xsd:documentation>The Algorithm Owner's identifier for the specific algorithm product and version used to
1952 determine the score or decision.</xsd:documentation>
1953 </xsd:annotation>
1954 </xsd:element>
1955 <xsd:choice minOccurs="1" maxOccurs="1">
1956 <xsd:element name="FusionResult" type="tns:FusionResult" />
1957 </xsd:sequence>
1958 </xsd:complexType>
1959 <xsd:complexType name="FusionResult">
1960 <xsd:sequence />
1961 </xsd:complexType>
1962 <xsd:complexType name="FusionScore">
1963 <xsd:complexContent>
1964 <xsd:extension base="tns:FusionResult">
1965 <xsd:sequence>
1966 <xsd:element name="Score" type="tns:Score">
1967 <xsd:annotation>
1968 <xsd:documentation>The similarity score assigned by the matching algorithm.</xsd:documentation>
1969 </xsd:annotation>
1970 </xsd:element>
1971 </xsd:sequence>
1972 </xsd:extension>
1973 </xsd:complexContent>
1974 </xsd:complexType>
1975 <xsd:complexType name="FusionDecision">
1976 <xsd:complexContent>
1977 <xsd:extension base="tns:FusionResult">
1978 <xsd:sequence>
1979 <xsd:element name="Decision" type="xsd:string">
1980 <xsd:annotation>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

1981 ~~—~~ <xsd:documentation>The match decision assigned by the matching algorithm.</xsd:documentation>
1982 ~~—~~ </xsd:annotation>
1983 ~~—~~ </xsd:element>
1984 ~~—~~ </xsd:choice>
1985 ~~—~~ </xsd:sequence>
1986 ~~—~~ </xsd:extension>
1987 ~~—~~ </xsd:complexContent>
1988 </xsd:complexType>
1989 <xsd:complexType name="GenericRequestParameters">
1990 <xsd:annotation>
1991 <xsd:documentation>Common request paramters that can be used to identify the
1992 requester.</xsd:documentation>
1993 </xsd:annotation>
1994 <xsd:sequence>
1995 <xsd:element name="Application" type="tns:ApplicationIdentifier" minOccurs="0" maxOccurs="1">
1996 <xsd:annotation>
1997 <xsd:documentation>Identifies the requesting application.</xsd:documentation>
1998 </xsd:annotation>
1999 </xsd:element>
2000 <xsd:element name="ApplicationUser" type="tns:ApplicationUserIdentifier" minOccurs="0" maxOccurs="1">
2001 <xsd:annotation>
2002 <xsd:documentation>Identifers the user or instance of the requesting application.</xsd:documentation>
2003 </xsd:annotation>
2004 </xsd:element>
2005 <xsd:element name="BIASOperationName" type="xsd:string" minOccurs="0" maxOccurs="1">
2006 <xsd:annotation>
2007 <xsd:documentation>Identifers the BIAS operation name that is being requested.</xsd:documentation>
2008 </xsd:annotation>
2009 </xsd:element>
2010 </xsd:sequence>
2011 </xsd:complexType>
2012 <xsd:complexType name="InformationType">
2013 <xsd:annotation>
2014 <xsd:documentation>
2015 Allows for an unlimited number of data element types, and it does
2016 not specify nor require any particular data element.
2017 </xsd:documentation>
2018 </xsd:annotation>
2019 <xsd:sequence>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2020 ~~—~~<xsd:any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="unbounded"~~"/>~~>
2021 ~~—~~</xsd:sequence>
2022 ~~—~~</xsd:complexType>
2023 ~~—~~<xsd:complexType name="ListFilterType">
2024 ~~—~~<xsd:annotation>
2025 ~~—~~<xsd:documentation>
2026 ~~—~~Provides a method to filter the amount of information returned in
2027 ~~—~~a search of biometric data.
2028 ~~—~~</xsd:documentation>
2029 ~~—~~</xsd:annotation>
2030 ~~—~~<xsd:sequence>
2031 ~~—~~<xsd:element name="BiometricTypeFilters">
2032 ~~—~~<xsd:complexType>
2033 ~~—~~<xsd:sequence>
2034 ~~—~~<xsd:element name="BiometricTypeFilter" type="iso-iec19785-3-7:MultipleTypesMultipleTypesType" minOccurs="1"
2035 ~~—~~maxOccurs="unbounded">
2036 ~~—~~<xsd:annotation>
2037 ~~—~~<xsd:documentation>Limits the returned information to a specific type of biometric, as defined by
2038 ~~—~~CBEFF.</xsd:documentation>
2039 ~~—~~</xsd:annotation>
2040 ~~—~~</xsd:element>
2041 ~~—~~</xsd:sequence>
2042 ~~—~~</xsd:complexType>
2043 ~~—~~</xsd:element>
2044 ~~—~~<xsd:element name="IncludeBiometricSubtype" type="xsd:boolean" minOccurs="1" maxOccurs="1">
2045 ~~—~~<xsd:annotation>
2046 ~~—~~<xsd:documentation>A Boolean flag indicating if biometric subtype information should be
2047 ~~—~~returned.</xsd:documentation>
2048 ~~—~~</xsd:annotation>
2049 ~~—~~</xsd:element>
2050 ~~—~~</xsd:sequence>
2051 ~~—~~</xsd:complexType>
2052 ~~—~~<xsd:simpleType name="MatchType">
2053 ~~—~~<xsd:annotation>
2054 ~~—~~<xsd:documentation>The result of a fusion method.</xsd:documentation>
2055 ~~—~~</xsd:annotation>
2056 ~~—~~<xsd:restriction base="xsd:boolean"~~"/>~~>
2057 ~~—~~</xsd:simpleType>
2058 ~~—~~<xsd:complexType name="ProcessingOptionsType">
2059 ~~—~~<xsd:annotation>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2060 <xsd:documentation>
2061 BIAS aggregate services support the ability to include various
2062 processing options which direct and possibly control the business
2063 logic for that service. The ProcessingOptionsType provides a
2064 method to represent those options. Processing options should be
2065 defined by the implementing system.
2066 </xsd:documentation>
2067 </xsd:annotation>
2068 <xsd:sequence>
2069 <xsd:element name="Option" type="xsd:string" minOccurs="0" maxOccurs="unbounded">
2070 <xsd:annotation>
2071 <xsd:documentation>An option supported by the implementing system.</xsd:documentation>
2072 </xsd:annotation>
2073 </xsd:element>
2074 </xsd:sequence>
2075 </xsd:complexType>
2076 <xsd:simpleType name="ProductID">
2077 <xsd:annotation>
2078 <xsd:documentation>The vendor's ID for a particular product.</xsd:documentation>
2079 </xsd:annotation>
2080 <xsd:restriction base="xsd:string" />
2081 </xsd:simpleType>
2082 <xsd:complexType name="QualityData">
2083 <xsd:annotation>
2084 <xsd:documentation>Contains information about a biometric sample's quality and the algorithm used to
2085 compute the quality.</xsd:documentation>
2086 </xsd:annotation>
2087 <xsd:sequence>
2088 <xsd:element name="QualityScore" type="iso-iec19785-3-7:QualityQualityType" minOccurs="0"
2089 maxOccurs="1">
2090 <xsd:annotation>
2091 <xsd:documentation>The quality of a biometric sample.</xsd:documentation>
2092 </xsd:annotation>
2093 </xsd:element>
2094 <xsd:element name="AlgorithmVendor" type="tns:VendorIdentifier" minOccurs="1" maxOccurs="1">
2095 <xsd:annotation>
2096 <xsd:documentation>The vendor of the quality algorithm used to determine the quality
2097 score.</xsd:documentation>
2098 </xsd:annotation>
2099 </xsd:element>

Biasprofile-1.0-cd-01 20-October-2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

2100 <xsd:element name="AlgorithmVendorProductID" type="tns:ProductID" minOccurs="1" maxOccurs="1">
2101 <xsd:annotation>
2102 <xsd:documentation>The vendor's ID for the algorithm used to determine the quality.</xsd:documentation>
2103 </xsd:annotation>
2104 </xsd:element>
2105 <xsd:element name="AlgorithmVersion" type="tns:VersionType" minOccurs="0" maxOccurs="1">
2106 <xsd:annotation>
2107 <xsd:documentation>The version of the algorithm used to determine the quality.</xsd:documentation>
2108 </xsd:annotation>
2109 </xsd:element>
2110 </xsd:sequence>
2111 </xsd:complexType>
2112 <xsd:complexType name="RequestTemplate" ~~abstract="true"~~>
2113 <xsd:annotation>
2114 <xsd:documentation>Base template for BIAS primitive service requests.</xsd:documentation>
2115 </xsd:annotation>
2116 <xsd:sequence>
2117 <xsd:element name="GenericRequestParameters" type="tns:GenericRequestParameters" minOccurs="0"
2118 maxOccurs="1" ~~</>~~>
2119 </xsd:sequence>
2120 </xsd:complexType>
2121 <xsd:complexType name="ResponseStatus">
2122 <xsd:sequence>
2123 <xsd:element name="Return" type="tns:ReturnCode" minOccurs="1" maxOccurs="1">
2124 <xsd:annotation>
2125 <xsd:documentation>The return code indicates the return status of the operation.</xsd:documentation>
2126 </xsd:annotation>
2127 </xsd:element>
2128 <xsd:element name="Message" type="xsd:string" minOccurs="0" maxOccurs="1">
2129 <xsd:annotation>
2130 <xsd:documentation>A short message corresponding to the return code.</xsd:documentation>
2131 </xsd:annotation>
2132 </xsd:element>
2133 </xsd:sequence>
2134 </xsd:complexType>
2135 <xsd:complexType name="ResponseTemplate" ~~abstract="true"~~>
2136 <xsd:annotation>
2137 <xsd:documentation>Base template for BIAS responses.</xsd:documentation>
2138 </xsd:annotation>

2139 <xsd:sequence>
2140 <xsd:element name="ResponseStatus" type="tns:ResponseStatus" minOccurs="1" maxOccurs="1">
2141 <xsd:annotation>
2142 <xsd:documentation>Returned status for the operation.</xsd:documentation>
2143 </xsd:annotation>
2144 </xsd:element>
2145 </xsd:sequence>
2146 </xsd:complexType>
2147 <xsd:simpleType name="ReturnCode">
2148 <xsd:annotation>
2149 <xsd:documentation>BIAS Operation Return Codes</xsd:documentation>
2150 </xsd:annotation>
2151 <xsd:restriction base="xsd:unsignedLong">
2152 <xsd:enumeration value="0">
2153 <xsd:annotation>
2154 <xsd:documentation>Success</xsd:documentation>
2155 </xsd:annotation>
2156 </xsd:enumeration>
2157 </xsd:restriction>
2158 </xsd:simpleType>
2159 <xsd:simpleType name="Score">
2160 <xsd:annotation>
2161 <xsd:documentation>Match result or quality score.</xsd:documentation>
2162 </xsd:annotation>
2163 <xsd:restriction base="xsd:float">
2164 </xsd:simpleType>
2165 <xsd:complexType name="TokenType">
2166 <xsd:annotation>
2167 <xsd:documentation>Defines a token that is returned for asynchronous processing.</xsd:documentation>
2168 </xsd:annotation>
2169 <xsd:sequence>
2170 <xsd:element name="TokenValue" type="xsd:string" minOccurs="1" maxOccurs="1">
2171 <xsd:annotation>
2172 <xsd:documentation>A value returned by the implementing system that is used to retrieve the results to a
2173 service at a later time.</xsd:documentation>
2174 </xsd:annotation>
2175 </xsd:element>
2176 <xsd:element name="Expiration" type="xsd:date" minOccurs="1" maxOccurs="1">
2177 <xsd:annotation>

Formatted: English (U.S.)

Formatted: English (U.S.)

2178 | ~~—~~<xsd:documentation>A date and time at which point the token expires and the service results are no longer
2179 | guaranteed to be available.</xsd:documentation>
2180 | ~~—~~</xsd:annotation>
2181 | ~~—~~</xsd:element>
2182 | ~~—~~</xsd:sequence>
2183 | ~~—~~</xsd:complexType>
2184 | ~~—~~<xsd:simpleType name="VendorIdentifier">
2185 | ~~—~~<xsd:annotation>
2186 | ~~—~~<xsd:documentation>Identifies a vendor.</xsd:documentation>
2187 | ~~—~~</xsd:annotation>
2188 | ~~—~~<xsd:restriction base="xsd:string" ~~"/>"/>~~>
2189 | ~~—~~</xsd:simpleType>
2190 | ~~—~~<xsd:complexType name="Version">
2191 | ~~—~~<xsd:annotation>
2192 | ~~—~~<xsd:documentation>
2193 | ~~—~~For a description or definition of each data element, see the
2194 | ~~—~~referenced CBEFF standards in the CBEFF_XML_BIR_Type schema.
2195 | ~~—~~</xsd:documentation>
2196 | ~~—~~</xsd:annotation>
2197 | ~~—~~<xsd:sequence>
2198 | ~~—~~<xsd:element name="major" type="xsd:nonNegativeInteger" minOccurs="1" maxOccurs="1" ~~"/>"/>~~>
2199 | ~~—~~<xsd:element name="minor" type="xsd:nonNegativeInteger" minOccurs="1" maxOccurs="1" ~~"/>"/>~~>
2200 | ~~—~~</xsd:sequence>
2201 | ~~—~~</xsd:complexType>
2202 | ~~—~~<xsd:simpleType name="VersionType">
2203 | ~~—~~<xsd:annotation>
2204 | ~~—~~<xsd:documentation>The version of a component.</xsd:documentation>
2205 | ~~—~~</xsd:annotation>
2206 | ~~—~~<xsd:restriction base="xsd:string" ~~"/>"/>~~>
2207 | ~~—~~</xsd:simpleType>
2208 | ~~—~~<xsd:element name="AddSubjectToGalleryRequestAddSubjectToGallery">
2209 | ~~—~~<xsd:complexType>
2210 | ~~—~~<xsd:annotation>
2211 | ~~—~~<xsd:documentation>
2212 | ~~—~~Register a subject to a given gallery or population group.
2213 | ~~—~~</xsd:documentation>
2214 | ~~—~~</xsd:annotation>
2215 | ~~—~~<xsd:sequence>
2216 | ~~—~~<xsd:element name="AddSubjectToGalleryRequest" nillable="true">

Formatted: English (U.S.)

2217 <xsd:complexType>
2218 <xsd:complexContent>
2219 —<xsd:extension base="tns:RequestTemplate">
2220 —<xsd:sequence>
2221 —<xsd:element name="GalleryID" type="tns:BIASIDType" minOccurs="1" maxOccurs="1">
2222 —<xsd:annotation>
2223 —<xsd:documentation>The identifier of the gallery or population group to which the subject will be
2224 added.</xsd:documentation>
2225 —</xsd:annotation>
2226 —</xsd:element>
2227 —<xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
2228 —<xsd:annotation>
2229 —<xsd:documentation>The identity to add to the gallery.</xsd:documentation>
2230 —</xsd:annotation>
2231 —</xsd:element>
2232 —</xsd:sequence>
2233 —</xsd:extension>
2234 —</xsd:complexContent>
2235 —</xsd:complexType>
2236 —</xsd:element>
2237 —</xsd:sequence>
2238 </xsd:complexType>
2239 </xsd:element>
2240 <xsd:element name="AddSubjectToGalleryResponse">
2241 —<xsd:complexType>
2242 —<xsd:annotation>
2243 —<xsd:documentation>
2244 —The response to an AddSubjectToGallery request.
2245 —</xsd:documentation>
2246 —</xsd:annotation>
2247 —<xsd:sequence>
2248 <xsd:element name="AddSubjectToGalleryResponsePackage" nillable="true">
2249 <xsd:complexType>
2250 <xsd:complexContent>
2251 —<xsd:extension base="tns:ResponseTemplate"/>
2252 —</xsd:complexContent>
2253 —</xsd:complexType>
2254 —</xsd:element>
2255 —</xsd:sequence>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

2256 </xsd:complexType>
2257 </xsd:element>
2258 <xsd:element name="CheckQualityRequestCheckQuality">
2259   <xsd:complexType>
2260     <xsd:annotation>
2261       <xsd:documentation>
2262         Calculate a quality score for a given biometric.
2263       </xsd:documentation>
2264     </xsd:annotation>
2265     <xsd:sequence>
2266       <xsd:element name="CheckQualityRequest" nillable="true">
2267         <xsd:complexType>
2268           <xsd:complexContent>
2269             <xsd:extension base="tns:RequestTemplate">
2270               <xsd:sequence>
2271                 <xsd:element name="BiometricData" type="tns:BIASBiometricDataType" -minOccurs="1" maxOccurs="1">
2272                   <xsd:annotation>
2273                     <xsd:documentation>Data structure containing a single biometric sample for which a quality score is to be
2274                     determined.</xsd:documentation>
2275                   </xsd:annotation>
2276                 </xsd:element>
2277                 <xsd:element name="Quality" type="tns:QualityData" minOccurs="0" maxOccurs="1">
2278                   <xsd:annotation>
2279                     <xsd:documentation>Specifies a particular algorithm vendor and vender product ID.</xsd:documentation>
2280                   </xsd:annotation>
2281                 </xsd:element>
2282               </xsd:sequence>
2283             </xsd:extension>
2284           </xsd:complexContent>
2285         </xsd:complexType>
2286       </xsd:element>
2287     </xsd:sequence>
2288   </xsd:complexType>
2289 </xsd:element>
2290 <xsd:element name="CheckQualityResponse">
2291   <xsd:complexType>
2292     <xsd:annotation>
2293       <xsd:documentation>
2294         The response to a CheckQuality request.

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2295 </xsd:documentation>
2296 </xsd:annotation>
2297 <!--<xsd:sequence>
2298 <xsd:element name="CheckQualityResponsePackage" nillable="true">
2299 <xsd:complexType>
2300 <xsd:complexContent>
2301 <!--<xsd:extension base="tns:ResponseTemplate">
2302 <!--<xsd:sequence>
2303 <!--<xsd:element name="QualityInfo" type="tns:QualityData" minOccurs="1" maxOccurs="1">
2304 <!--<xsd:annotation>
2305 <!--<xsd:documentation>Contains the quality information for the submitted biometric
2306 sample.</xsd:documentation>
2307 <!--</xsd:annotation>
2308 <!--</xsd:element>
2309 <!--</xsd:sequence>
2310 <!--</xsd:extension>
2311 <!--</xsd:complexContent>
2312 <!--</xsd:complexType>
2313 <!--</xsd:element>
2314 <!--<xsd:element name="ClassifyBiometricDataRequest">
2315 <!--</xsd:sequence>
2316 </xsd:complexType>
2317 <!--</xsd:element>
2318 <xsd:element name="ClassifyBiometricData">
2319 <xsd:complexType>
2320 <xsd:annotation>
2321 <!--<xsd:documentation>
2322 <!--Classifies a biometric sample.
2323 <!--</xsd:documentation>
2324 <!--</xsd:annotation>
2325 <!--<xsd:sequence>
2326 <xsd:element name="ClassifyBiometricDataRequest" nillable="true">
2327 <xsd:complexType>
2328 <xsd:complexContent>
2329 <!--<xsd:extension base="tns:RequestTemplate">
2330 <!--<xsd:sequence>
2331 <!--<xsd:element name="BiometricData" type="tns:BIASBiometricDataType" minOccurs="1" maxOccurs="1">
2332 <!--<xsd:annotation>
2333 <!--<xsd:documentation>Data structure containing a single biometric sample for which the classification is to
2334 be determined.</xsd:documentation>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Biasprofile-1.0-cd-01 20-October-2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

2335 </xsd:annotation>
2336 </xsd:element>
2337 </xsd:sequence>
2338 </xsd:extension>
2339 </xsd:complexContent>
2340 </xsd:complexType>
2341 </xsd:element>
2342 </xsd:sequence>
2343 </xsd:complexType>
2344 </xsd:element>
2345 <xsd:element name="ClassifyBiometricDataResponse">
2346 <xsd:complexType>
2347 <xsd:annotation>
2348 <xsd:documentation>
2349 The response to a ClassifyBiometricData request, containing
2350 the classification of a biometric sample.
2351 </xsd:documentation>
2352 </xsd:annotation>
2353 <xsd:sequence>
2354 <xsd:element name="ClassifyBiometricDataResponsePackage" nillable="true">
2355 <xsd:complexType>
2356 <xsd:complexContent>
2357 <xsd:extension base="tns:ResponseTemplate">
2358 <xsd:sequence>
2359 <xsd:element name="ClassificationData" type="tns:ClassificationData" minOccurs="1" maxOccurs="1">
2360 <xsd:annotation>
2361 <xsd:documentation>Information on the results and type of classification
2362 performed.</xsd:documentation>
2363 </xsd:annotation>
2364 </xsd:element>
2365 </xsd:sequence>
2366 </xsd:extension>
2367 </xsd:complexContent>
2368 </xsd:complexType>
2369 </xsd:element>
2370 </xsd:sequence>
2371 </xsd:complexType>
2372 </xsd:element>
2373 <xsd:element name="CreateSubject">

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2374 <xsd:complexType>
 2375 <xsd:annotation>
 2376 <xsd:documentation>
 2377 Create a new subject record.
 2378 </xsd:documentation>
 2379 </xsd:annotation>
 2380 <xsd:sequence>
 2381 <xsd:element name="CreateSubjectRequest" nillable="true">
 2382 <xsd:complexType>
 2383 <xsd:annotation>
 2384 <xsd:documentation>
 2385 Create a new subject record.
 2386 </xsd:documentation>
 2387 </xsd:annotation>
 2388 <xsd:complexContent>
 2389 <xsd:extension base="tns:RequestTemplate"/>
 2390 </xsd:complexContent>
 2391 </xsd:complexType>
 2392 </xsd:element>
 2393 </xsd:sequence>
 2394 </xsd:complexType>
 2395 </xsd:element>
 2396 <xsd:element name="CreateSubjectResponse">
 2397 <xsd:complexType>
 2398 <xsd:annotation>
 2399 <xsd:documentation>
 2400 The response to a CreateSubject request, containing the subject
 2401 ID of the new subject record.
 2402 </xsd:documentation>
 2403 </xsd:annotation>
 2404 <xsd:sequence>
 2405 <xsd:element name="CreateSubjectResponsePackage" nillable="true">
 2406 <xsd:complexType>
 2407 <xsd:complexContent>
 2408 <xsd:extension base="tns:ResponseTemplate">
 2409 <xsd:sequence>
 2410 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
 2411 <xsd:annotation>
 2412 <xsd:documentation>Contains the subject ID of the new subject record.</xsd:documentation>
 2413 </xsd:annotation>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

2414 </xsd:element>
2415 </xsd:sequence>
2416 </xsd:extension>
2417 </xsd:complexContent>
2418 </xsd:complexType>
2419 </xsd:element>
2420 </xsd:sequence>
2421 </xsd:complexType>
2422 </xsd:element>
2423 <xsd:element name="DeleteBiographicDataRequestDeleteBiographicData">
2424 <xsd:complexType>
2425 <xsd:annotation>
2426 <xsd:documentation>
2427 Erase all of the biographic data associated with a given
2428 subject record or, in the encounter-centric model, with a
2429 given encounter.
2430 </xsd:documentation>
2431 </xsd:annotation>
2432 <xsd:sequence>
2433 <xsd:element name="DeleteBiographicDataRequest" nillable="true">
2434 <xsd:complexType>
2435 <xsd:complexContent>
2436 <xsd:extension base="tns:RequestTemplate">
2437 <xsd:sequence>
2438 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
2439 <xsd:annotation>
2440 <xsd:documentation>Contains either the subject ID or encounter ID reference.</xsd:documentation>
2441 </xsd:annotation>
2442 </xsd:element>
2443 </xsd:sequence>
2444 </xsd:extension>
2445 </xsd:complexContent>
2446 </xsd:complexType>
2447 </xsd:element>
2448 </xsd:sequence>
2449 </xsd:complexType>
2450 </xsd:element>
2451 <xsd:element name="DeleteBiographicDataResponse">
2452 <xsd:complexType>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2453 <xsd:annotation>
2454 <xsd:documentation>
2455 The response to a DeleteBiographicData request.
2456 </xsd:documentation>
2457 </xsd:annotation>
2458 <xsd:sequence>
2459 <xsd:element name="DeleteBiographicDataResponsePackage" nillable="true">
2460 <xsd:complexType>
2461 <xsd:complexContent>
2462 <xsd:extension base="tns:ResponseTemplate"/>
2463 </xsd:complexContent>
2464 </xsd:complexType>
2465 </xsd:element>
2466 </xsd:sequence>
2467 </xsd:complexType>
2468 </xsd:element>
2469 <xsd:element name="DeleteBiometricDataRequestDeleteBiometricData">
2470 <xsd:complexType>
2471 <xsd:annotation>
2472 <xsd:documentation>
2473 Erase all of the biometric data associated with a given
2474 subject record or, in the encounter-centric model, with a
2475 given encounter.
2476 </xsd:documentation>
2477 </xsd:annotation>
2478 <xsd:sequence>
2479 <xsd:element name="DeleteBiometricDataRequest" nillable="true">
2480 <xsd:complexType>
2481 <xsd:complexContent>
2482 <xsd:extension base="tns:RequestTemplate">
2483 <xsd:sequence>
2484 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
2485 <xsd:annotation>
2486 <xsd:documentation>Contains either the subject ID or encounter ID reference.</xsd:documentation>
2487 </xsd:annotation>
2488 </xsd:element>
2489 </xsd:sequence>
2490 </xsd:extension>
2491 </xsd:complexContent>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2492 </xsd:complexType>
2493 </xsd:element>
2494 </xsd:sequence>
2495 </xsd:complexType>
2496 </xsd:element>
2497 <xsd:element name="DeleteBiometricDataResponse">
2498 <xsd:complexType>
2499 <xsd:annotation>
2500 <xsd:documentation>
2501 The response to a DeleteBiometricData request.
2502 </xsd:documentation>
2503 </xsd:annotation>
2504 <xsd:sequence>
2505 <xsd:element name="DeleteBiometricDataResponsePackage" nillable="true">
2506 <xsd:complexType>
2507 <xsd:complexContent>
2508 <xsd:extension base="tns:ResponseTemplate"/>
2509 </xsd:complexContent>
2510 </xsd:complexType>
2511 </xsd:element>
2512 </xsd:sequence>
2513 </xsd:complexType>
2514 </xsd:element>
2515 <xsd:element name="DeleteSubjectRequestDeleteSubject">
2516 <xsd:complexType>
2517 <xsd:annotation>
2518 <xsd:documentation>
2519 Delete an existing subject record and, in an encounter-centric
2520 model, any associated encounter information.
2521 </xsd:documentation>
2522 </xsd:annotation>
2523 <xsd:sequence>
2524 <xsd:element name="DeleteSubjectRequest" nillable="true">
2525 <xsd:complexType>
2526 <xsd:complexContent>
2527 <xsd:extension base="tns:RequestTemplate">
2528 <xsd:sequence>
2529 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
2530 <xsd:annotation>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2531 <xsd:documentation>Subject ID of the identity to delete.</xsd:documentation>
2532 </xsd:annotation>
2533 </xsd:element>
2534 </xsd:sequence>
2535 </xsd:extension>
2536 </xsd:complexContent>
2537 </xsd:complexType>
2538 </xsd:element>
2539 </xsd:sequence>
2540 </xsd:complexType>
2541 </xsd:element>
2542 <xsd:element name="DeleteSubjectResponse">
2543 < <xsd:complexType>
2544 < <xsd:annotation>
2545 < <xsd:documentation>
2546 < The response to a DeleteSubject request.
2547 < </xsd:documentation>
2548 < </xsd:annotation>
2549 < <xsd:sequence>
2550 <xsd:element name="DeleteSubjectResponsePackage" nillable="true">
2551 <xsd:complexType>
2552 <xsd:complexContent>
2553 < <xsd:extension base="tns:ResponseTemplate"/>/>
2554 < </xsd:complexContent>
2555 < </xsd:complexType>
2556 < </xsd:element>
2557 < </xsd:sequence>
2558 </xsd:complexType>
2559 </xsd:element>
2560 <xsd:element name="DeleteSubjectFromGalleryRequestDeleteSubjectFromGallery">
2561 < <xsd:complexType>
2562 < <xsd:annotation>
2563 < <xsd:documentation>
2564 < Remove the registration of a subject from a gallery or
2565 < population group.
2566 < </xsd:documentation>
2567 < </xsd:annotation>
2568 < <xsd:sequence>
2569 <xsd:element name="DeleteSubjectFromGalleryRequest" nillable="true">

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2570 <xsd:complexType>
2571 <xsd:complexContent>
2572 <xsd:extension base="tns:RequestTemplate">
2573 <xsd:sequence>
2574 <xsd:element name="GalleryID" type="tns:BIASIDType" minOccurs="1" maxOccurs="1">
2575 <xsd:annotation>
2576 <xsd:documentation>The identifier of the gallery or population group from which the subject will be
2577 deleted.</xsd:documentation>
2578 </xsd:annotation>
2579 </xsd:element>
2580 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
2581 <xsd:annotation>
2582 <xsd:documentation>The identity to remove from the gallery.</xsd:documentation>
2583 </xsd:annotation>
2584 </xsd:element>
2585 </xsd:sequence>
2586 </xsd:extension>
2587 </xsd:complexContent>
2588 </xsd:complexType>
2589 </xsd:element>
2590 </xsd:sequence>
2591 </xsd:complexType>
2592 </xsd:element>
2593 <xsd:element name="DeleteSubjectFromGalleryResponse">
2594 <xsd:complexType>
2595 <xsd:annotation>
2596 <xsd:documentation>
2597 The response to a DeleteSubjectFromGallery request.
2598 </xsd:documentation>
2599 </xsd:annotation>
2600 <xsd:sequence>
2601 <xsd:element name="DeleteSubjectFromGalleryResponsePackage" nillable="true">
2602 <xsd:complexType>
2603 <xsd:complexContent>
2604 <xsd:extension base="tns:ResponseTemplate"/>
2605 </xsd:complexContent>
2606 </xsd:complexType>
2607 </xsd:element>
2608 </xsd:sequence>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

2609 </xsd:complexType>
2610 </xsd:element>
2611 <xsd:element name="GetIdentifySubjectResultsRequestGetIdentifySubjectResults">
2612   <xsd:complexType>
2613     <xsd:annotation>
2614       <xsd:documentation>
2615         Retrieve the identification results for a specified token,
2616         which was returned by the Identify Subject service.
2617       </xsd:documentation>
2618     </xsd:annotation>
2619     <xsd:sequence>
2620 <xsd:element name="GetIdentifySubjectResultsRequest" nillable="true">
2621   <xsd:complexType>
2622     <xsd:complexContent>
2623       <xsd:extension base="tns:RequestTemplate">
2624         <xsd:sequence>
2625           <xsd:element name="Token" type="tns:TokenType" minOccurs="1" maxOccurs="1">
2626             <xsd:annotation>
2627               <xsd:documentation>A value used to retrieve the results of an IdentifySubject
2628               request.</xsd:documentation>
2629             </xsd:annotation>
2630           </xsd:element>
2631         </xsd:sequence>
2632       </xsd:extension>
2633     </xsd:complexContent>
2634   </xsd:complexType>
2635 </xsd:element>
2636 </xsd:sequence>
2637 </xsd:complexType>
2638 </xsd:element>
2639 <xsd:element name="GetIdentifySubjectResultsResponse">
2640   <xsd:complexType>
2641     <xsd:annotation>
2642       <xsd:documentation>
2643         The response to a GetIdentifySubjectResults request, which includes a candidate list.
2644       </xsd:documentation>
2645     </xsd:annotation>
2646     <xsd:sequence>
2647 <xsd:element name="GetIdentifySubjectResultsResponsePackage" nillable="true">

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2648 <xsd:complexType>
2649 <xsd:complexContent>
2650 <xsd:extension base="tns:ResponseTemplate">
2651 <xsd:sequence>
2652 <xsd:element name="CandidateList" type="tns:CandidateListType" minOccurs="1" maxOccurs="1">
2653 <xsd:annotation>
2654 <xsd:documentation>A rank-ordered list of candidates that have a likelihood of matching the input
2655 biometric sample.</xsd:documentation>
2656 </xsd:annotation>
2657 </xsd:element>
2658 </xsd:sequence>
2659 </xsd:extension>
2660 </xsd:complexContent>
2661 </xsd:complexType>
2662 </xsd:element>
2663 <xsd:element name="IdentifySubjectRequest">
2664 <xsd:sequence>
2665 </xsd:complexType>
2666 </xsd:element>
2667 <xsd:element name="IdentifySubject">
2668 <xsd:complexType>
2669 <xsd:annotation>
2670 <xsd:documentation>
2671 Perform an identification search against a given gallery for
2672 a given biometric.
2673 </xsd:documentation>
2674 </xsd:annotation>
2675 <xsd:sequence>
2676 <xsd:element name="IdentifySubjectRequest" nillable="true">
2677 <xsd:complexType>
2678 <xsd:complexContent>
2679 <xsd:extension base="tns:RequestTemplate">
2680 <xsd:sequence>
2681 <xsd:element name="GalleryID" type="tns:BIASIDType" minOccurs="1" maxOccurs="1">
2682 <xsd:annotation>
2683 <xsd:documentation>The identifier of the gallery or population group which will be
2684 searched.</xsd:documentation>
2685 </xsd:annotation>
2686 </xsd:element>
2687 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Biasprofile-1.0-cd-01 20-October-2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

2688 <xsd:annotation>
2689 <xsd:documentation>Contains the BIR, a data structure containing the biometric sample for the
2690 search.</xsd:documentation>
2691 </xsd:annotation>
2692 </xsd:element>
2693 <xsd:element name="MaxListSize" type="xsd:positiveInteger" minOccurs="1" maxOccurs="1">
2694 <xsd:annotation>
2695 <xsd:documentation>The maximum size of the candidate list that should be
2696 returned.</xsd:documentation>
2697 </xsd:annotation>
2698 </xsd:element>
2699 </xsd:sequence>
2700 </xsd:extension>
2701 </xsd:complexContent>
2702 </xsd:complexType>
2703 </xsd:element>
2704 </xsd:sequence>
2705 </xsd:complexType>
2706 </xsd:element>
2707 <xsd:element name="IdentifySubjectResponse">
2708 <xsd:complexType>
2709 <xsd:annotation>
2710 <xsd:documentation>
2711 The response to an IdentifySubject request, returning a
2712 rank-ordered candidate list.
2713 </xsd:documentation>
2714 </xsd:annotation>
2715 <xsd:sequence>
2716 <xsd:element name="IdentifySubjectResponsePackage" nillable="true">
2717 <xsd:complexType>
2718 <xsd:complexContent>
2719 <xsd:extension base="tns:ResponseTemplate">
2720 <xsd:choice minOccurs="1" maxOccurs="1">
2721 <xsd:sequence>
2722 <xsd:element name="IdentifySubjectResult" type="tns:IdentifySubjectResultType" />
2723 </xsd:sequence>
2724 </xsd:extension>
2725 </xsd:complexContent>
2726 </xsd:complexType>
2727 </xsd:element>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2728 [</xsd:sequence>](#)
2729 [</xsd:complexType>](#)
2730 [</xsd:element>](#)
2731 [<xsd:complexType name="IdentifySubjectResultType">](#)
2732 [<xsd:sequence />](#)
2733 [</xsd:complexType>](#)
2734 [<xsd:complexType name="CandidateListResultType">](#)
2735 [<xsd:complexContent>](#)
2736 [<xsd:extension base="tns:IdentifySubjectResultType">](#)
2737 [<xsd:sequence>](#)
2738 [<xsd:element name="CandidateList" type="tns:CandidateListType">](#)
2739 [——<xsd:annotation>](#)
2740 [——<xsd:documentation>](#)A rank-ordered list of candidates that have a likelihood of matching the input
2741 [biometric sample; returned with successful synchronous request processing.</xsd:documentation>](#)
2742 [——</xsd:annotation>](#)
2743 [——</xsd:element>](#)
2744 [——</xsd:sequence>](#)
2745 [</xsd:extension>](#)
2746 [</xsd:complexContent>](#)
2747 [</xsd:complexType>](#)
2748 [<xsd:complexType name="TokenResultType">](#)
2749 [<xsd:complexContent>](#)
2750 [<xsd:extension base="tns:IdentifySubjectResultType">](#)
2751 [<xsd:sequence>](#)
2752 [<xsd:element name="Token" type="tns:TokenType">](#)
2753 [——<xsd:annotation>](#)
2754 [——<xsd:documentation>](#)A token used to retrieve the results of the IdentifySubject request; returned with
2755 [asynchronous request processing.</xsd:documentation>](#)
2756 [——</xsd:annotation>](#)
2757 [——</xsd:element>](#)
2758 [——</xsd:choice>](#)
2759 [——</xsd:extension>](#)
2760 [——</xsd:complexContent>](#)
2761 [——</xsd:complexType>](#)
2762 [——</xsd:element>](#)
2763 [——<xsd:element name="ListBiographicDataRequestListBiographicData">](#)
2764 [——<xsd:complexType>](#)
2765 [——<xsd:annotation>](#)
2766 [——<xsd:documentation>](#)
2767 [——](#)Lists the biographic data elements stored for a subject.

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2768 </xsd:documentation>
2769 </xsd:annotation>
2770 xsd:sequence
2771 <xsd:element name="ListBiographicDataRequest" nillable="true">
2772 <xsd:complexType>
2773 <xsd:complexContent>
2774 <xsd:extension base="tns:RequestTemplate">
2775 <xsd:sequence>
2776 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
2777 <xsd:annotation>
2778 <xsd:documentation>Identifies the subject or, in the encounter-centric model, a subject and an
2779 encounter.</xsd:documentation>
2780 </xsd:annotation>
2781 </xsd:element>
2782 </xsd:sequence>
2783 </xsd:extension>
2784 </xsd:complexContent>
2785 </xsd:complexType>
2786 </xsd:element>
2787 </xsd:sequence>
2788 </xsd:complexType>
2789 </xsd:element>
2790 <xsd:element name="ListBiographicDataResponse">
2791 <xsd:complexType>
2792 <xsd:annotation>
2793 <xsd:documentation>
2794 The response to a ListBiographicData request, containing a list
2795 of biographic data elements stored for a subject. In the
2796 encounter-centric model, the biographic data elements for a
2797 specific encounter are returned. If an encounter ID is not
2798 specified and encounter data exists for the subject, the list
2799 of encounter IDs which contain biographic data is returned.
2800 </xsd:documentation>
2801 </xsd:annotation>
2802 xsd:sequence
2803 <xsd:element name="ListBiographicDataResponsePackage" nillable="true">
2804 <xsd:complexType>
2805 <xsd:complexContent>
2806 <xsd:extension base="tns:ResponseTemplate">

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2807 <xsd:sequence>
2808 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="0" maxOccurs="1">
2809 <xsd:annotation>
2810 <xsd:documentation>
2811 Contains a list of biographic data elements associated with a
2812 subject or encounter; non-empty if the service was
2813 successful, biographic data exists, and either (a) the
2814 person-centric model is being used or (b) the
2815 encounter-centric model is being used and an encounter
2816 identifier was specified.
2817 </xsd:documentation>
2818 </xsd:annotation>
2819 </xsd:element>
2820 <xsd:element name="EncounterList" type="tns:EncounterListType" minOccurs="0" maxOccurs="1">
2821 <xsd:annotation>
2822 <xsd:documentation>
2823 A list of encounter ID's associated with a subject and
2824 which contain biographic data; non-empty if the service
2825 was successful, biographic data exists, the
2826 encounter-centric model is being used, and an encounter
2827 identifier was not specified.
2828 </xsd:documentation>
2829 </xsd:annotation>
2830 </xsd:element>
2831 </xsd:sequence>
2832 </xsd:extension>
2833 </xsd:complexContent>
2834 </xsd:complexType>
2835 </xsd:element>
2836 </xsd:sequence>
2837 </xsd:complexType>
2838 </xsd:element>
2839 <xsd:element name="ListBiometricDataRequestListBiometricData">
2840 <xsd:complexType>
2841 <xsd:annotation>
2842 <xsd:documentation>
2843 Lists the biometric data elements stored for a subject. Note
2844 that no actual biometric data is returned by this service (see
2845 the RetrieveBiometricInformation service to obtain the biometric

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2846 data).

2847 </xsd:documentation>

2848 </xsd:annotation>

2849 <!--<xsd:sequence>

2850 <xsd:element name="ListBiometricDataRequest" nillable="true">

2851 <xsd:complexType>

2852 <xsd:complexContent>

2853 <!--<xsd:extension base="tns:RequestTemplate">

2854 <!--<xsd:sequence>

2855 <!--<xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">

2856 <!--<xsd:annotation>

2857 <!--<xsd:documentation>Identifies the subject or, in the encounter-centric model, a subject and an

2858 encounter.</xsd:documentation>

2859 <!--</xsd:annotation>

2860 <!--</xsd:element>

2861 <!--<xsd:element name="ListFilter" type="tns:ListFilterType" minOccurs="0" maxOccurs="1">

2862 <!--<xsd:annotation>

2863 <!--<xsd:documentation>Indicates what biometric information should be returned.</xsd:documentation>

2864 <!--</xsd:annotation>

2865 <!--</xsd:element>

2866 <!--</xsd:sequence>

2867 <!--</xsd:extension>

2868 <!--</xsd:complexContent>

2869 <!--</xsd:complexType>

2870 <!--</xsd:element>

2871 <!--</xsd:sequence>

2872 </xsd:complexType>

2873 </xsd:element>

2874 <xsd:element name="ListBiometricDataResponse">

2875 <xsd:complexType>

2876 <xsd:annotation>

2877 <xsd:documentation>

2878 The response to a ListBiometricData request, containing a list

2879 of biometric data elements stored for a subject. In the

2880 encounter-centric model, the biometric data elements for a

2881 specific encounter are returned. If an encounter ID is not

2882 specified and encounter data exists for the subject, the list

2883 of encounter IDs which contain biometric data is returned.

2884 </xsd:documentation>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2885 </xsd:annotation>
2886 <!--<xsd:sequence>
2887 <xsd:element name="ListBiometricDataResponsePackage" nillable="true">
2888 <xsd:complexType>
2889 <xsd:complexContent>
2890 <!--<xsd:extension base="tns:ResponseTemplate">
2891 <!--<xsd:sequence>
2892 <!--<xsd:element name="Identity" type="tns:BIASIdentity">
2893 <!--<xsd:annotation>
2894 <!--<xsd:documentation>
2895 <!--Includes a list of biometric data elements associated
2896 <!--with a subject or encounter or a list of encounter ID's
2897 <!--associated with a subject and which contain biometric
2898 <!--data.
2899 <!--</xsd:documentation>
2900 <!--</xsd:annotation>
2901 <!--</xsd:element>
2902 <!--</xsd:sequence>
2903 <!--</xsd:extension>
2904 <!--</xsd:complexContent>
2905 <!--</xsd:complexType>
2906 <!--</xsd:element>
2907 <!--</xsd:sequence>
2908 <!--</xsd:complexType>
2909 <!--</xsd:element>
2910 <xsd:element name="PerformFusionRequestPerformFusion">
2911 <!--<xsd:complexType>
2912 <!--<xsd:annotation>
2913 <!--<xsd:documentation>
2914 <!--Accepts either match score or match decision information and creates a fused match result.
2915 <!--</xsd:documentation>
2916 <!--</xsd:annotation>
2917 <!--<xsd:sequence>
2918 <xsd:element name="PerformFusionRequest" nillable="true">
2919 <xsd:complexType>
2920 <xsd:complexContent>
2921 <!--<xsd:extension base="tns:RequestTemplate">
2922 <!--<xsd:sequence>
2923 <!--<xsd:element name="FusionInput" type="tns:FusionInformationListType" minOccurs="1" maxOccurs="1">

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2924 <xsd:annotation>

2925 <xsd:documentation>Score or decision input information to the fusion method.</xsd:documentation>

2926 </xsd:annotation>

2927 </xsd:element>

2928 </xsd:sequence>

2929 </xsd:extension>

2930 </xsd:complexContent>

2931 </xsd:complexType>

2932 </xsd:element>

2933 </xsd:sequence>

2934 </xsd:complexType>

2935 </xsd:element>

2936 <xsd:element name="PerformFusionResponse">

2937 <xsd:complexType>

2938 <xsd:annotation>

2939 <xsd:documentation>

2940 The response to the PerformFusion request.

2941 </xsd:documentation>

2942 </xsd:annotation>

2943 <xsd:sequence>

2944 <xsd:element name="PerformFusionResponsePackage" nillable="true">

2945 <xsd:complexType>

2946 <xsd:complexContent>

2947 <xsd:extension base="tns:ResponseTemplate">

2948 <xsd:sequence>

2949 <xsd:element name="Match" type="tns:MatchType" minOccurs="1" maxOccurs="1">

2950 <xsd:annotation>

2951 <xsd:documentation>Indicates the result of the fusion method</xsd:documentation>

2952 </xsd:annotation>

2953 </xsd:element>

2954 </xsd:sequence>

2955 </xsd:extension>

2956 </xsd:complexContent>

2957 </xsd:complexType>

2958 </xsd:element>

2959 </xsd:sequence>

2960 </xsd:complexType>

2961 </xsd:element>

2962 <xsd:element name="QueryCapabilitiesRequestQueryCapabilities">

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

2963 <xsd:complexType>
2964 <xsd:annotation>
2965 <xsd:documentation>
2966 Returns a list of the capabilities, options, galleries, etc.
2967 that are supported by the BIAS implementation.
2968 </xsd:documentation>
2969 </xsd:annotation>
2970 <xsd:sequence>
2971 <xsd:element name="QueryCapabilitiesRequest" nillable="true">
2972 <xsd:complexType>
2973 <xsd:complexContent>
2974 <xsd:extension base="tns:RequestTemplate"/>
2975 </xsd:complexContent>
2976 </xsd:complexType>
2977 </xsd:element>
2978 </xsd:sequence>
2979 </xsd:complexType>
2980 </xsd:element>
2981 <xsd:element name="QueryCapabilitiesResponse">
2982 <xsd:complexType>
2983 <xsd:annotation>
2984 <xsd:documentation>
2985 The response to a QueryCapabilities request.
2986 </xsd:documentation>
2987 </xsd:annotation>
2988 <xsd:sequence>
2989 <xsd:element name="QueryCapabilitiesResponsePackage" nillable="true">
2990 <xsd:complexType>
2991 <xsd:complexContent>
2992 <xsd:extension base="tns:ResponseTemplate">
2993 <xsd:sequence>
2994 <xsd:element name="CapabilityList" type="tns:CapabilityListType" minOccurs="1" maxOccurs="1">
2995 <xsd:annotation>
2996 <xsd:documentation>A list of capabilities supported by the BIAS implementation.</xsd:documentation>
2997 </xsd:annotation>
2998 </xsd:element>
2999 </xsd:sequence>
3000 </xsd:extension>
3001 </xsd:complexContent>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3002 ~~—~~</xsd:complexType>
3003 ~~—~~</xsd:element>
3004 ~~—~~</xsd:sequence>
3005 ~~—~~</xsd:complexType>
3006 ~~—~~</xsd:element>
3007 <xsd:element name="~~RetrieveBiographicInformationRequest~~RetrieveBiographicInformation">
3008 ~~—~~<xsd:complexType>
3009 ~~—~~<xsd:annotation>
3010 ~~—~~<xsd:documentation>
3011 ~~—~~Retrieves the biographic data associated with a subject ID.
3012 ~~—~~</xsd:documentation>
3013 ~~—~~</xsd:annotation>
3014 ~~—~~</xsd:sequence>
3015 <xsd:element name="RetrieveBiographicInformationRequest" nillable="true">
3016 <xsd:complexType>
3017 <xsd:complexContent>
3018 ~~—~~<xsd:extension base="tns:RequestTemplate">
3019 ~~—~~<xsd:sequence>
3020 ~~—~~<xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
3021 ~~—~~<xsd:annotation>
3022 ~~—~~<xsd:documentation>Identifies the subject or, in the encounter-centric model, a subject and an
3023 encounter.</xsd:documentation>
3024 ~~—~~</xsd:annotation>
3025 ~~—~~</xsd:element>
3026 ~~—~~</xsd:sequence>
3027 ~~—~~</xsd:extension>
3028 ~~—~~</xsd:complexContent>
3029 </xsd:complexType>
3030 </xsd:element>
3031 </xsd:sequence>
3032 </xsd:complexType>
3033 </xsd:element>
3034 <xsd:element name="RetrieveBiographicInformationResponse">
3035 <xsd:complexType>
3036 <xsd:annotation>
3037 <xsd:documentation>
3038 The response to a RetrieveBiographicInformation request,
3039 containing the biographic data associated with a subject ID. In
3040 the encounter-centric model, the biographic data associated with

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3041 ——— a specified encounter is returned. If the encounter ID is not
3042 ——— specified in the encounter-centric model, the biographic
3043 ——— information associated with the most recent encounter is returned.
3044 ——— </xsd:documentation>
3045 ——— </xsd:annotation>
3046 ——— <xsd:sequence>
3047 <xsd:element name="RetrieveBiographicInformationResponsePackage" nillable="true">
3048 <xsd:complexType>
3049 <xsd:complexContent>
3050 ——— <xsd:extension base="tns:ResponseTemplate">
3051 ——— <xsd:sequence>
3052 ——— <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
3053 ——— <xsd:annotation>
3054 ——— <xsd:documentation>Includes the set of biographic data associated with a subject.</xsd:documentation>
3055 ——— </xsd:annotation>
3056 ——— </xsd:element>
3057 ——— </xsd:sequence>
3058 ——— </xsd:extension>
3059 ——— </xsd:complexContent>
3060 ——— </xsd:complexType>
3061 ——— </xsd:element>
3062 ——— <xsd:element name="RetrieveBiometricInformationRequest">
3063 ——— </xsd:sequence>
3064 </xsd:complexType>
3065 ——— </xsd:element>
3066 <xsd:element name="RetrieveBiometricInformation">
3067 <xsd:complexType>
3068 <xsd:annotation>
3069 ——— <xsd:documentation>
3070 ——— Retrieves the biometric data associated with a subject ID.
3071 ——— </xsd:documentation>
3072 ——— </xsd:annotation>
3073 ——— <xsd:sequence>
3074 <xsd:element name="RetrieveBiometricInformationRequest" nillable="true">
3075 <xsd:complexType>
3076 <xsd:complexContent>
3077 ——— <xsd:extension base="tns:RequestTemplate">
3078 ——— <xsd:sequence>
3079 ——— <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3080 <xsd:annotation>
3081 <xsd:documentation>Identifies the subject or, in the encounter-centric model, a subject and an
3082 encounter.</xsd:documentation>
3083 </xsd:annotation>
3084 </xsd:element>
3085 <xsd:element name="BiometricType" type="iso-iec19785-3-7:MultipleTypesMultipleTypesType"
3086 minOccurs="0" maxOccurs="1">
3087 <xsd:annotation>
3088 <xsd:documentation>The type of biological or behavioral data to retrieve.</xsd:documentation>
3089 </xsd:annotation>
3090 </xsd:element>
3091 </xsd:sequence>
3092 </xsd:extension>
3093 </xsd:complexContent>
3094 </xsd:complexType>
3095 </xsd:element>
3096 </xsd:sequence>
3097 </xsd:complexType>
3098 </xsd:element>
3099 <xsd:element name="RetrieveBiometricInformationResponse">
3100 <xsd:complexType>
3101 <xsd:annotation>
3102 <xsd:documentation>
3103 The response to a RetrieveBiometricInformation request,
3104 containing the biometric data associated with a subject ID. In
3105 the encounter-centric model, the biometric data associated with
3106 a specified encounter is returned. If the encounter ID is not
3107 specified in the encounter-centric model, the biometric
3108 information associated with the most recent encounter is returned.
3109 </xsd:documentation>
3110 </xsd:annotation>
3111 <xsd:sequence>
3112 <xsd:element name="RetrieveBiometricInformationResponsePackage" nillable="true">
3113 <xsd:complexType>
3114 <xsd:complexContent>
3115 <xsd:extension base="tns:ResponseTemplate">
3116 <xsd:sequence>
3117 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
3118 <xsd:annotation>
3119 <xsd:documentation>Includes the biometric data associated with a subject.</xsd:documentation>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

3120 </xsd:annotation>
3121 </xsd:element>
3122 </xsd:sequence>
3123 </xsd:extension>
3124 </xsd:complexContent>
3125 </xsd:complexType>
3126 </xsd:element>
3127 </xsd:sequence>
3128 </xsd:complexType>
3129 </xsd:element>
3130 <xsd:element name="SetBiographicDataRequestSetBiographicData">
3131 <xsd:complexType>
3132 <xsd:annotation>
3133 <xsd:documentation>
3134 Associates biographic data to a given subject record.
3135 </xsd:documentation>
3136 </xsd:annotation>
3137 <xsd:sequence>
3138 <xsd:element name="SetBiographicDataRequest" nillable="true">
3139 <xsd:complexType>
3140 <xsd:complexContent>
3141 <xsd:extension base="tns:RequestTemplate">
3142 <xsd:sequence>
3143 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
3144 <xsd:annotation>
3145 <xsd:documentation>Identifies the subject or, in the encounter-centric model, a subject and an encounter,
3146 and includes the biographic data to store.</xsd:documentation>
3147 </xsd:annotation>
3148 </xsd:element>
3149 </xsd:sequence>
3150 </xsd:extension>
3151 </xsd:complexContent>
3152 </xsd:complexType>
3153 </xsd:element>
3154 </xsd:sequence>
3155 </xsd:complexType>
3156 </xsd:element>
3157 <xsd:element name="SetBiographicDataResponse">
3158 <xsd:complexType>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3159 <xsd:annotation>
3160 <xsd:documentation>
3161 The response to a SetBiographicData request.
3162 </xsd:documentation>
3163 </xsd:annotation>
3164 <xsd:sequence>
3165 <xsd:element name="SetBiographicDataResponsePackage" nillable="true">
3166 <xsd:complexType>
3167 <xsd:complexContent>
3168 <xsd:extension base="tns:ResponseTemplate">
3169 <xsd:sequence>
3170 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="0" maxOccurs="1">
3171 <xsd:annotation>
3172 <xsd:documentation>In an encounter-centric model, identifies the encounter ID assigned to a new
3173 encounter.</xsd:documentation>
3174 </xsd:annotation>
3175 </xsd:element>
3176 </xsd:sequence>>>
3177 </xsd:extension>
3178 </xsd:complexContent>
3179 </xsd:complexType>
3180 </xsd:element>
3181 <xsd:element name="SetBiometricDataRequest">
3182 </xsd:sequence>
3183 </xsd:complexType>
3184 </xsd:element>
3185 <xsd:element name="SetBiometricData">
3186 <xsd:complexType>
3187 <xsd:annotation>
3188 <xsd:documentation>
3189 Associates biometric data to a given subject record.
3190 </xsd:documentation>
3191 </xsd:annotation>
3192 <xsd:sequence>
3193 <xsd:element name="SetBiometricDataRequest" nillable="true">
3194 <xsd:complexType>
3195 <xsd:complexContent>
3196 <xsd:extension base="tns:RequestTemplate">
3197 <xsd:sequence>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3198 ~~————~~<xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
3199 ~~————~~<xsd:annotation>
3200 ~~————~~<xsd:documentation>Identifies the subject or, in the encounter-centric model, a subject and an encounter,
3201 and includes the biometric data to store.</xsd:documentation>
3202 ~~————~~</xsd:annotation>
3203 ~~————~~</xsd:element>
3204 ~~————~~</xsd:sequence>
3205 ~~————~~</xsd:extension>
3206 ~~————~~</xsd:complexContent>
3207 ~~————~~</xsd:complexType>
3208 ~~————~~</xsd:element>
3209 ~~————~~</xsd:sequence>
3210 </xsd:complexType>
3211 </xsd:element>
3212 <xsd:element name="SetBiometricDataResponse">
3213 ~~————~~<xsd:complexType>
3214 ~~————~~<xsd:annotation>
3215 ~~————~~<xsd:documentation>
3216 The response to a SetBiometricData request.
3217 </xsd:documentation>
3218 </xsd:annotation>
3219 ~~————~~<xsd:sequence>
3220 <xsd:element name="SetBiometricDataResponsePackage" nillable="true">
3221 <xsd:complexType>
3222 <xsd:complexContent>
3223 ~~————~~<xsd:extension base="tns:ResponseTemplate">
3224 ~~————~~<xsd:sequence>
3225 ~~————~~<xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="0" maxOccurs="1">
3226 ~~————~~<xsd:annotation>
3227 ~~————~~<xsd:documentation>In an encounter-centric model, identifies the encounter ID assigned to a new
3228 encounter.</xsd:documentation>
3229 ~~————~~</xsd:annotation>
3230 ~~————~~</xsd:element>
3231 ~~————~~</xsd:sequence>>>
3232 ~~————~~</xsd:extension>
3233 ~~————~~</xsd:complexContent>
3234 ~~————~~</xsd:complexType>
3235 ~~————~~</xsd:element>
3236 ~~————~~<xsd:element name="TransformBiometricDataRequest">
3237 ~~————~~<<</xsd:sequence>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

3238 </xsd:complexType>
3239 <!--</xsd:element>
3240 <xsd:element name="TransformBiometricData">
3241 <xsd:complexType>
3242 <xsd:annotation>
3243 <!--<xsd:documentation>
3244 <!--Transforms or processes a given biometric in one format into a new target format.
3245 <!--</xsd:documentation>
3246 <!--</xsd:annotation>
3247 <!--<xsd:sequence>
3248 <xsd:element name="TransformBiometricDataRequest" nillable="true">
3249 <xsd:complexType>
3250 <xsd:complexContent>
3251 <!--<xsd:extension base="tns:RequestTemplate">
3252 <!--<xsd:sequence>
3253 <!--<xsd:element name="InputBIR" type="tns:CBEFF_BIR_Type" minOccurs="1" maxOccurs="1">
3254 <!--<xsd:annotation>
3255 <!--<xsd:documentation>Data structure containing the biometric information to be
3256 transformed.</xsd:documentation>
3257 <!--</xsd:annotation>
3258 <!--</xsd:element>
3259 <!--<xsd:element name="TransformOperation" type="xsd:unsignedLong" minOccurs="1" maxOccurs="1">
3260 <!--<xsd:annotation>
3261 <!--<xsd:documentation>Value indicating the type of transformation to perform.</xsd:documentation>
3262 <!--</xsd:annotation>
3263 <!--</xsd:element>
3264 <!--<xsd:element name="TransformControl" type="xsd:string" minOccurs="0" maxOccurs="1">
3265 <!--<xsd:annotation>
3266 <!--<xsd:documentation>Specifies controls for the requested transform operation.</xsd:documentation>
3267 <!--</xsd:annotation>
3268 <!--</xsd:element>
3269 <!--</xsd:sequence>
3270 <!--</xsd:extension>
3271 <!--</xsd:complexContent>
3272 <!--</xsd:complexType>
3273 <!--</xsd:element>
3274 <!--</xsd:sequence>
3275 </xsd:complexType>
3276 </xsd:element>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Font: Calibri

```

3277 <xsd:element name="TransformBiometricDataResponse">
3278   <xsd:complexType>
3279     <xsd:annotation>
3280       <xsd:documentation>
3281         The response to a TransformBiometricData request.
3282       </xsd:documentation>
3283     </xsd:annotation>
3284     <xsd:sequence>
3285       <xsd:element name="TransformBiometricDataResponsePackage" nillable="true">
3286         <xsd:complexType>
3287           <xsd:complexContent>
3288             <xsd:extension base="tns:ResponseTemplate">
3289               <xsd:sequence>
3290                 <xsd:element name="OutputBIR" type="tns:CBEFF_BIR_Type" minOccurs="0" maxOccurs="1">
3291                   <xsd:annotation>
3292                     <xsd:documentation>Data structure containing the new, transformed biometric
3293                     information.</xsd:documentation>
3294                   </xsd:annotation>
3295                 </xsd:element>
3296               </xsd:sequence>
3297             </xsd:extension>
3298           </xsd:complexContent>
3299         </xsd:complexType>
3300       </xsd:element>
3301     <xsd:element name="UpdateBiographicDataRequest">
3302     </xsd:sequence>
3303   </xsd:complexType>
3304 </xsd:element>
3305 <xsd:element name="UpdateBiographicData">
3306   <xsd:complexType>
3307     <xsd:annotation>
3308       <xsd:documentation>
3309         Updates the biographic data for a given subject record.
3310       </xsd:documentation>
3311     </xsd:annotation>
3312     <xsd:sequence>
3313       <xsd:element name="UpdateBiographicDataRequest" nillable="true">
3314       <xsd:complexType>
3315     <xsd:complexContent>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3316 <xsd:extension base="tns:RequestTemplate">
3317 <xsd:sequence>
3318 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
3319 <xsd:annotation>
3320 <xsd:documentation>Identifies the subject or, in the encounter-centric model, a subject and an encounter,
3321 and includes the biographic data to update.</xsd:documentation>
3322 </xsd:annotation>
3323 </xsd:element>
3324 </xsd:sequence>
3325 </xsd:extension>
3326 </xsd:complexContent>
3327 </xsd:complexType>
3328 </xsd:element>
3329 </xsd:sequence>
3330 </xsd:complexType>
3331 </xsd:element>
3332 <xsd:element name="UpdateBiographicDataResponse">
3333 <xsd:complexType>
3334 <xsd:annotation>
3335 <xsd:documentation>
3336 The response to an UpdateBiographicData request.
3337 </xsd:documentation>
3338 </xsd:annotation>
3339 <xsd:sequence>
3340 <xsd:element name="UpdateBiographicDataResponsePackage" nillable="true">
3341 <xsd:complexType>
3342 <xsd:complexContent>
3343 <xsd:extension base="tns:ResponseTemplate"/>
3344 </xsd:complexContent>
3345 </xsd:complexType>
3346 </xsd:element>
3347 </xsd:sequence>
3348 </xsd:complexType>
3349 </xsd:element>
3350 <xsd:element name="UpdateBiometricDataRequestUpdateBiometricData">
3351 <xsd:complexType>
3352 <xsd:annotation>
3353 <xsd:documentation>
3354 Updates a single biometric sample for a given subject record.

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3355 ~~————~~</xsd:documentation>
3356 ~~————~~</xsd:annotation>
3357 ~~————~~<xsd:sequence>
3358 ~~————~~<xsd:element name="UpdateBiometricDataRequest" nillable="true">
3359 ~~————~~<xsd:complexType>
3360 <xsd:complexContent>
3361 ~~————~~<xsd:extension base="tns:RequestTemplate">
3362 ~~————~~<xsd:sequence>
3363 ~~————~~<xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
3364 ~~————~~<xsd:annotation>
3365 <xsd:documentation>Identifies the subject or, in the encounter-centric model, a subject and an encounter,
3366 and includes the biometric data to update.</xsd:documentation>
3367 ~~————~~</xsd:annotation>
3368 ~~————~~</xsd:element>
3369 <xsd:element name="Merge" type="xsd:boolean" minOccurs="0" maxOccurs="1">
3370 ~~————~~<xsd:annotation>
3371 <xsd:documentation>Value indicating if the input biometric sample should be merged with any existing
3372 biometric information.</xsd:documentation>
3373 ~~————~~</xsd:annotation>
3374 ~~————~~</xsd:element>
3375 ~~————~~</xsd:sequence>
3376 ~~————~~</xsd:extension>
3377 ~~————~~</xsd:complexContent>
3378 ~~————~~</xsd:complexType>
3379 ~~————~~</xsd:element>
3380 ~~————~~</xsd:sequence>
3381 </xsd:complexType>
3382 </xsd:element>
3383 <xsd:element name="UpdateBiometricDataResponse">
3384 <xsd:complexType>
3385 <xsd:annotation>
3386 <xsd:documentation>
3387 The response to an UpdateBiometricData request.
3388 </xsd:documentation>
3389 </xsd:annotation>
3390 <xsd:sequence>
3391 <xsd:element name="UpdateBiometricDataResponsePackage" nillable="true">
3392 <xsd:complexType>
3393 <xsd:complexContent>
3394 <xsd:extension base="tns:ResponseTemplate"/></xsd:extension>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3395 </xsd:complexContent>
3396 </xsd:complexType>
3397 </xsd:element>
3398 </xsd:sequence>
3399 </xsd:complexType>
3400 </xsd:element>
3401 <xsd:element name="VerifySubjectRequestVerifySubject">
3402 <xsd:complexType>
3403 <xsd:annotation>
3404 <xsd:documentation>
3405 Performs a 1:1 verification match between a given biometric and
3406 either a claim to identity in a given gallery or another given
3407 biometric.
3408 </xsd:documentation>
3409 </xsd:annotation>
3410 <xsd:sequence>
3411 <xsd:element name="VerifySubjectRequest" nillable="true">
3412 <xsd:complexType>
3413 <xsd:complexContent>
3414 <xsd:extension base="tns:RequestTemplate">
3415 <xsd:sequence>
3416 <xsd:element name="GalleryID" type="tns:BIASIDType" minOccurs="0" maxOccurs="1">
3417 <xsd:annotation>
3418 <xsd:documentation>The identifier of the gallery or population group of which the subject must be a
3419 member.</xsd:documentation>
3420 </xsd:annotation>
3421 </xsd:element>
3422 <xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
3423 <xsd:annotation>
3424 <xsd:documentation>Includes the identifying information and/or input and reference biometric
3425 samples.</xsd:documentation>
3426 </xsd:annotation>
3427 </xsd:element>
3428 </xsd:sequence>
3429 </xsd:extension>
3430 </xsd:complexContent>
3431 </xsd:complexType>
3432 </xsd:element>
3433 </xsd:sequence>
3434 </xsd:complexType>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3435 </xsd:element>

3436 <xsd:element name="VerifySubjectResponse">

3437 <xsd:complexType>

3438 <xsd:annotation>

3439 <xsd:documentation>

3440 The response to a VerifySubject request.

3441 </xsd:documentation>

3442 </xsd:annotation>

3443 <xsd:sequence>

3444 <xsd:element name="VerifySubjectResponsePackage" nillable="true">

3445 <xsd:complexType>

3446 <xsd:complexContent>

3447 <xsd:extension base="tns:ResponseTemplate">

3448 <xsd:sequence>

3449 <xsd:element name="Match" type="xsd:boolean" minOccurs="0" maxOccurs="1">

3450 <xsd:annotation>

3451 <xsd:documentation>Indicates if the Input BIR matched either the biometric information associated with

3452 the Identity Claim or the Reference BIR.</xsd:documentation>

3453 </xsd:annotation>

3454 </xsd:element>

3455 <xsd:element name="Score" type="tns:Score" minOccurs="0" maxOccurs="1">

3456 <xsd:annotation>

3457 <xsd:documentation>The score if the biometric information matched.</xsd:documentation>

3458 </xsd:annotation>

3459 </xsd:element>

3460 </xsd:sequence>

3461 </xsd:extension>

3462 </xsd:complexContent>

3463 </xsd:complexType>

3464 </xsd:element>

3465 <xsd:element name="EnrollRequest">

3466 </xsd:sequence>

3467 </xsd:complexType>

3468 </xsd:element>

3469 <xsd:element name="Enroll">

3470 <xsd:complexType>

3471 <xsd:annotation>

3472 <xsd:documentation>

3473 The Enroll aggregate service adds a new subject or, in an

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3474 ——— encounter-centric model, a new encounter to the system. This may
 3475 ——— be accomplished in a number of different ways according to
 3476 ——— system requirements and/or resources. If the Enroll aggregate
 3477 ——— service is implemented as a synchronous service, the
 3478 ——— implementing system immediately processes the request and
 3479 ——— returns the results in the ReturnData parameter. If the Enroll
 3480 ——— aggregate service is implemented as an asynchronous service, the
 3481 ——— implementing system returns a token in the ReturnData
 3482 ——— parameter, which is an indication that the request is being
 3483 ——— handled asynchronously. In this case, the GetEnrollResults
 3484 ——— service is used to poll for the results of the Enroll request.
 3485 ———</xsd:documentation>
 3486 ———</xsd:annotation>
 3487 ———<xsd:sequence>
 3488 <xsd:element name="EnrollRequest" nillable="true">
 3489 <xsd:complexType>
 3490 <xsd:complexContent>
 3491 ———<xsd:extension base="tns:AggregateRequestTemplate" />
 3492 ———</xsd:complexContent>
 3493 ———</xsd:complexType>
 3494 ———</xsd:element>
 3495 ———</xsd:sequence>
 3496 </xsd:complexType>
 3497 </xsd:element>
 3498 <xsd:element name="EnrollResponse">
 3499 ———<xsd:complexType>
 3500 ———<xsd:annotation>
 3501 ———<xsd:documentation>The response to an Enroll request.</xsd:documentation>
 3502 ———</xsd:annotation>
 3503 ———<xsd:sequence>
 3504 <xsd:element name="EnrollResponsePackage" nillable="true">
 3505 <xsd:complexType>
 3506 <xsd:complexContent>
 3507 ———<xsd:extension base="tns:AggregateResponseTemplate" />
 3508 ———</xsd:complexContent>
 3509 ———</xsd:complexType>
 3510 ———</xsd:element>
 3511 ———</xsd:sequence>
 3512 </xsd:complexType>

Formatted: Space Before: 4 pt, After: 4 pt,
 Adjust space between Latin and Asian text,
 Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
 Adjust space between Latin and Asian text,
 Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
 Adjust space between Latin and Asian text,
 Adjust space between Asian text and numbers

```

3513 </xsd:element>
3514 <xsd:element name="GetEnrollResultsRequestGetEnrollResults">
3515   <xsd:complexType>
3516     <xsd:annotation>
3517       <xsd:documentation>
3518         The GetEnrollResults aggregate service retrieves the enrollment
3519         results for the specified token. This service is used in
3520         conjunction with the Enroll aggregate service. If the Enroll
3521         aggregate service is implemented as an asynchronous service, the
3522         implementing system returns a token, and the GetEnrollResults
3523         service is used to poll for the results of the original Enroll
3524         request.
3525       </xsd:documentation>
3526     </xsd:annotation>
3527   <xsd:sequence>
3528     <xsd:element name="GetEnrollResultsRequest" nillable="true">
3529       <xsd:complexType>
3530         <xsd:complexContent>
3531           <xsd:extension base="tns:RequestTemplate">
3532             <xsd:sequence>
3533               <xsd:element name="Token" type="tns:TokenType" minOccurs="1" maxOccurs="1">
3534                 <xsd:annotation>
3535                   <xsd:documentation>A value used to retrieve the results of the Enroll request.</xsd:documentation>
3536                 </xsd:annotation>
3537               </xsd:element>
3538             </xsd:sequence>
3539           </xsd:extension>
3540         </xsd:complexContent>
3541       </xsd:complexType>
3542     </xsd:element>
3543   </xsd:sequence>
3544 </xsd:complexType>
3545 </xsd:element>
3546 <xsd:element name="GetEnrollResultsResponse">
3547   <xsd:complexType>
3548     <xsd:annotation>
3549       <xsd:documentation>The response to a GetEnrollResults request.</xsd:documentation>
3550     </xsd:annotation>
3551   <xsd:sequence>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

3552 <xsd:element name="GetEnrollResultsResponsePackage" nillable="true">
3553 <xsd:complexType>
3554 <xsd:complexContent>
3555 <xsd:extension base="tns:AggregateResponseTemplate"/>
3556 </xsd:complexContent>
3557 </xsd:complexType>
3558 </xsd:element>
3559 </xsd:sequence>
3560 </xsd:complexType>
3561 </xsd:element>
3562 <xsd:element name="GetIdentifyResultsRequestGetIdentifyResults">
3563 <xsd:complexType>
3564 <xsd:annotation>
3565 <xsd:documentation>
3566 The GetIdentifyResults aggregate service retrieves the
3567 identification results for the specified token. This service is
3568 used in conjunction with the Identify aggregate service. If the
3569 Identify aggregate service is implemented as an asynchronous
3570 service, the implementing system returns a token, and the
3571 GetIdentifyResults service is used to poll for the results of
3572 the original Identify request.
3573 </xsd:documentation>
3574 </xsd:annotation>
3575 </xsd:sequence>
3576 <xsd:element name="GetIdentifyResultsRequest" nillable="true">
3577 <xsd:complexType>
3578 <xsd:complexContent>
3579 <xsd:extension base="tns:RequestTemplate">
3580 <xsd:sequence>
3581 <xsd:element name="Token" type="tns:TokenType" minOccurs="1" maxOccurs="1">
3582 <xsd:annotation>
3583 <xsd:documentation>A value used to retrieve the results of the Identify request.</xsd:documentation>
3584 </xsd:annotation>
3585 </xsd:element>
3586 </xsd:sequence>
3587 </xsd:extension>
3588 </xsd:complexContent>
3589 </xsd:complexType>
3590 </xsd:element>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

3591 </xsd:sequence>
3592 </xsd:complexType>
3593 </xsd:element>
3594 <xsd:element name="GetIdentifyResultsResponse">
3595 <xsd:complexType>
3596 <xsd:annotation>
3597 <xsd:documentation>The response to a GetIdentifyResults request.</xsd:documentation>
3598 </xsd:annotation>
3599 <xsd:sequence>
3600 <xsd:element name="GetIdentifyResultsResponsePackage" nillable="true">
3601 <xsd:complexType>
3602 <xsd:complexContent>
3603 <xsd:extension base="tns:AggregateResponseTemplate"/>
3604 </xsd:complexContent>
3605 </xsd:complexType>
3606 </xsd:element>
3607 </xsd:sequence>
3608 </xsd:complexType>
3609 </xsd:element>
3610 <xsd:element name="GetVerifyResultsRequestGetVerifyResults">
3611 <xsd:complexType>
3612 <xsd:annotation>
3613 <xsd:documentation>
3614 The GetVerifyResults aggregate service retrieves the verification
3615 results for the specified token. This service is used in
3616 conjunction with the Verify aggregate service. If the Verify
3617 aggregate service is implemented as an asynchronous service, the
3618 implementing system returns a token, and the GetVerifyResults
3619 service is used to poll for the results of the original Verify
3620 request.
3621 </xsd:documentation>
3622 </xsd:annotation>
3623 <xsd:sequence>
3624 <xsd:element name="GetVerifyResultsRequest" nillable="true">
3625 <xsd:complexType>
3626 <xsd:complexContent>
3627 <xsd:extension base="tns:RequestTemplate">
3628 <xsd:sequence>
3629 <xsd:element name="Token" type="tns:TokenType" minOccurs="1" maxOccurs="1">

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers


```

3630 <xsd:annotation>
3631 <xsd:documentation>A value used to retrieve the results of the Verify request.</xsd:documentation>
3632 </xsd:annotation>
3633 </xsd:element>
3634 </xsd:sequence>
3635 </xsd:extension>
3636 </xsd:complexContent>
3637 </xsd:complexType>
3638 </xsd:element>
3639 </xsd:sequence>
3640 </xsd:complexType>
3641 </xsd:element>
3642 <xsd:element name="GetVerifyResultsResponse">
3643 <xsd:complexType>
3644 <xsd:annotation>
3645 <xsd:documentation>The response to a GetVerifyResults request.</xsd:documentation>
3646 </xsd:annotation>
3647 <xsd:sequence>
3648 <xsd:element name="GetVerifyResultsResponsePackage" nillable="true">
3649 <xsd:complexType>
3650 <xsd:complexContent>
3651 <xsd:extension base="tns:AggregateResponseTemplate">
3652 <xsd:sequence>
3653 <xsd:element name="Match" type="xsd:boolean" minOccurs="0" maxOccurs="1">
3654 <xsd:annotation>
3655 <xsd:documentation>Indicates if the Input BIR matched either the biometric information associated with
3656 the Identity Claim or the Reference BIR.</xsd:documentation>
3657 </xsd:annotation>
3658 </xsd:element>
3659 <xsd:element name="Score" type="tns:Score" minOccurs="0" maxOccurs="1">
3660 <xsd:annotation>
3661 <xsd:documentation>The score if the biometric information matched.</xsd:documentation>
3662 </xsd:annotation>
3663 </xsd:element>
3664 </xsd:sequence>
3665 </xsd:extension>
3666 </xsd:complexContent>
3667 </xsd:complexType>
3668 </xsd:element>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3669 ~~<xsd:element name="IdentifyRequest">~~
3670 ~~<</xsd:sequence>~~
3671 ~~</xsd:complexType>~~
3672 ~~</xsd:element>~~
3673 ~~<xsd:element name="Identify">~~
3674 ~~<xsd:complexType>~~
3675 ~~<xsd:annotation>~~
3676 ~~<xsd:documentation>~~
3677 ~~The Identify aggregate service performs an identification~~
3678 ~~function according to system requirements and/or resources. If~~
3679 ~~the Identify aggregate service is implemented as a synchronous~~
3680 ~~service, the implementing system immediately processes the~~
3681 ~~request and returns the results in the ReturnData parameter. If~~
3682 ~~the Identify aggregate service is implemented as an asynchronous~~
3683 ~~service, the implementing system returns a token in the~~
3684 ~~ReturnData parameter, which is an indication that the request is~~
3685 ~~being handled asynchronously. In this case, the~~
3686 ~~GetIdentifyResults service is used to poll for the results of~~
3687 ~~the Identify request.~~
3688 ~~</xsd:documentation>~~
3689 ~~</xsd:annotation>~~
3690 ~~<xsd:sequence>~~
3691 ~~<xsd:element name="IdentifyRequest" nillable="true">~~
3692 ~~<xsd:complexType>~~
3693 ~~<xsd:complexContent>~~
3694 ~~<xsd:extension base="tns:AggregateRequestTemplate"/>~~
3695 ~~</xsd:complexContent>~~
3696 ~~</xsd:complexType>~~
3697 ~~</xsd:element>~~
3698 ~~</xsd:sequence>~~
3699 ~~</xsd:complexType>~~
3700 ~~</xsd:element>~~
3701 ~~<xsd:element name="IdentifyResponse">~~
3702 ~~<xsd:complexType>~~
3703 ~~<xsd:annotation>~~
3704 ~~<xsd:documentation>The response to an Identify request.</xsd:documentation>~~
3705 ~~</xsd:annotation>~~
3706 ~~<xsd:sequence>~~
3707 ~~<xsd:element name="IdentifyResponsePackage" nillable="true">~~

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3708 <xsd:complexType>
3709 <xsd:complexContent>
3710 ——<xsd:extension base="tns:AggregateResponseTemplate"/>
3711 ——</xsd:complexContent>
3712 ——</xsd:complexType>
3713 ——</xsd:element>
3714 ——</xsd:sequence>
3715 </xsd:complexType>
3716 </xsd:element>
3717 <xsd:element name="RetrieveInformationRequestRetrieveInformation">
3718 ——<xsd:complexType>
3719 ——<xsd:annotation>
3720 ——<xsd:documentation>
3721 ——The RetrieveInformation aggregate service retrieves requested
3722 ——information about a subject, or in an encounter-centric model
3723 ——about an encounter. In a person-centric model, this aggregate
3724 ——service may be used to retrieve both biographic and biometric
3725 ——information for a subject record. In an encounter-centric model,
3726 ——this aggregate service may be used to retrieve biographic and/or
3727 ——biometric information for either a single encounter or all
3728 ——encounters. Either a SubjectID or EncounterID must be specified
3729 ——in the Identify parameter.
3730 ——</xsd:documentation>
3731 ——</xsd:annotation>
3732 ——<xsd:sequence>
3733 <xsd:element name="RetrieveInformationRequest" nillable="true">
3734 <xsd:complexType>
3735 <xsd:complexContent>
3736 ——<xsd:extension base="tns:RequestTemplate">
3737 ——<xsd:sequence>
3738 ——<xsd:element name="ProcessingOptions" type="tns:ProcessingOptionsType" minOccurs="1" maxOccurs="1">
3739 ——<xsd:annotation>
3740 ——<xsd:documentation>Options that guide how the service request is processed, and may identify what
3741 type(s) of information should be returned.</xsd:documentation>
3742 ——</xsd:annotation>
3743 ——</xsd:element>
3744 ——<xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
3745 ——<xsd:annotation>
3746 ——<xsd:documentation>Includes the identifier of the subject or encounter.</xsd:documentation>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3747 ~~————~~ </xsd:annotation>
3748 ~~————~~ </xsd:element>
3749 ~~————~~ </xsd:sequence>
3750 ~~————~~ </xsd:extension>
3751 ~~————~~ </xsd:complexContent>
3752 ~~————~~ </xsd:complexType>
3753 ~~————~~ </xsd:element>
3754 ~~————~~ </xsd:sequence>
3755 </xsd:complexType>
3756 </xsd:element>
3757 <xsd:element name="RetrieveInformationResponse">
3758 ~~————~~ <xsd:complexType>
3759 ~~————~~ <xsd:annotation>
3760 ~~————~~ <xsd:documentation>The response to a RetrieveInformation request.</xsd:documentation>
3761 ~~————~~ </xsd:annotation>
3762 ~~————~~ <xsd:sequence>
3763 <xsd:element name="RetrieveInformationResponsePackage" nillable="true">
3764 <xsd:complexType>
3765 <xsd:complexContent>
3766 ~~————~~ <xsd:extension base="tns:AggregateResponseTemplate" ~~base="tns:AggregateResponseTemplate" />
3767 ~~————~~ </xsd:complexContent>
3768 ~~————~~ </xsd:complexType>
3769 ~~————~~ </xsd:element>
3770 ~~————~~ </xsd:sequence>
3771 </xsd:complexType>
3772 </xsd:element>
3773 <xsd:element name="VerifyRequestVerify">
3774 ~~————~~ <xsd:complexType>
3775 ~~————~~ <xsd:annotation>
3776 ~~————~~ <xsd:documentation>
3777 ~~————~~ The Verify aggregate service performs a 1:1 verification
3778 ~~————~~ function according to system requirements and/or resources.
3779 ~~————~~ Either the IdentityClaim or ReferenceBIR input data elements in
3780 ~~————~~ the Identity parameter are required. If the Verify aggregate
3781 ~~————~~ service is implemented as a synchronous service, the
3782 ~~————~~ implementing system immediately processes the request and returns
3783 ~~————~~ the results in the ReturnData parameter. If the Verify aggregate
3784 ~~————~~ service is implemented as an asynchronous service, the
3785 ~~————~~ implementing system returns a token in the ReturnData parameter,~~

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

3786 ——— which is an indication that the request is being handled
3787 ——— asynchronously. In this case, the GetVerifyResults service is
3788 ——— used to poll for the results of the Verify request.
3789 ———</xsd:documentation>
3790 ———</xsd:annotation>
3791 ———<xsd:sequence>
3792 <xsd:element name="VerifyRequest" nillable="true">
3793 <xsd:complexType>
3794 <xsd:complexContent>
3795 ———<xsd:extension base="tns:AggregateRequestTemplate">
3796 ———<xsd:sequence>
3797 ———<xsd:element name="Identity" type="tns:BIASIdentity" minOccurs="1" maxOccurs="1">
3798 ———<xsd:annotation>
3799 ———<xsd:documentation>Includes either the IdentityClaim or ReferenceBIR.</xsd:documentation>
3800 ———</xsd:annotation>
3801 ———</xsd:element>
3802 ———<xsd:element name="GalleryID" type="tns:BIASIDType" minOccurs="0" maxOccurs="1">
3803 ———<xsd:annotation>
3804 ———<xsd:documentation>The identifier of the gallery or population group of which the subject must be a
3805 member.</xsd:documentation>
3806 ———</xsd:annotation>
3807 ———</xsd:element>
3808 ———</xsd:sequence>
3809 ———</xsd:extension>
3810 ———</xsd:complexContent>
3811 ———</xsd:complexType>
3812 ———</xsd:element>
3813 ———</xsd:sequence>
3814 </xsd:complexType>
3815 </xsd:element>
3816 <xsd:element name="VerifyResponse">
3817 ———<xsd:complexType>
3818 ———<xsd:annotation>
3819 ———<xsd:documentation>The response to a Verify request.</xsd:documentation>
3820 ———</xsd:annotation>
3821 ———<xsd:sequence>
3822 <xsd:element name="VerifyResponsePackage" nillable="true">
3823 <xsd:complexType>
3824 <xsd:complexContent>

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

3825 <xsd:extension base="tns:AggregateResponseTemplate">
3826 <xsd:sequence>
3827 <xsd:element name="Match" type="xsd:boolean" minOccurs="0" maxOccurs="1">
3828 <xsd:annotation>
3829 <xsd:documentation>Indicates if the Input BIR matched either the biometric information associated with
3830 the Identity Claim or the Reference BIR.</xsd:documentation>
3831 </xsd:annotation>
3832 </xsd:element>
3833 <xsd:element name="Score" type="tns:Score" minOccurs="0" maxOccurs="1">
3834 <xsd:annotation>
3835 <xsd:documentation>The score if the biometric information matched.</xsd:documentation>
3836 </xsd:annotation>
3837 </xsd:element>
3838 </xsd:sequence>
3839 </xsd:extension>
3840 </xsd:complexContent>
3841 </xsd:complexType>
3842 </xsd:element>
3843 </xsd:sequence>
3844 </xsd:complexType>
3845 </xsd:element>
3846 <xsd:element name="BIASFault" type="tns:BIASFaultDetail"/>
3847 </xsd:schema>
3848 </wsdl:types>
3849 <wsdl:message name="BIASFaultMessage">
3850 <wsdl:part name="parameters" element="tns:BIASFault"/>
3851 </wsdl:message>
3852 <wsdl:message name="AddSubjectToGalleryRequestMessage">
3853 <wsdl:part name="AddSubjectToGalleryRequestparameters" element="AddSubjectToGalleryRequest"
3854 />tns:AddSubjectToGallery"/>
3855 </wsdl:message>
3856 <wsdl:message name="AddSubjectToGalleryResponseMessage">
3857 <wsdl:part name="parameters" element="tns:AddSubjectToGalleryResponse"
3858 element="AddSubjectToGalleryResponse"/>
3859 </wsdl:message>
3860 <wsdl:message name="CheckQualityRequestMessage">
3861 <wsdl:part name="CheckQualityRequestparameters" element="CheckQualityRequest"/>tns:CheckQuality"/>
3862 </wsdl:message>
3863 <wsdl:message name="CheckQualityResponseMessage">
3864 <wsdl:part name="parameters" element="tns:CheckQualityResponse" element="CheckQualityResponse"/>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

3865 </wsdl:message>
3866 <wsdl:message name="ClassifyBiometricDataRequestMessage">
3867 <wsdl:part name="ClassifyBiometricDataRequestparameters" element="ClassifyBiometricDataRequest"
3868 />tns:ClassifyBiometricData"/>
3869 </wsdl:message>
3870 <wsdl:message name="ClassifyBiometricDataResponseMessage">
3871 <wsdl:part name="parameters" element="tns:ClassifyBiometricDataResponse"
3872 element="ClassifyBiometricDataResponse" />"/>
3873 </wsdl:message>
3874 <wsdl:message name="CreateSubjectRequestMessage">
3875 <wsdl:part name="CreateSubjectRequestparameters" element="CreateSubjectRequest" />tns:CreateSubject"/>
3876 </wsdl:message>
3877 <wsdl:message name="CreateSubjectResponseMessage">
3878 <wsdl:part name="parameters" element="tns:CreateSubjectResponse" element="CreateSubjectResponse" />"/>
3879 </wsdl:message>
3880 <wsdl:message name="DeleteBiographicDataRequestMessage">
3881 <wsdl:part name="DeleteBiographicDataRequestparameters" element="DeleteBiographicDataRequest"
3882 />tns:DeleteBiographicData"/>
3883 </wsdl:message>
3884 <wsdl:message name="DeleteBiographicDataResponseMessage">
3885 <wsdl:part name="parameters" element="tns:DeleteBiographicDataResponse"
3886 element="DeleteBiographicDataResponse" />"/>
3887 </wsdl:message>
3888 <wsdl:message name="DeleteBiometricDataRequestMessage">
3889 <wsdl:part name="DeleteBiometricDataRequestparameters" element="DeleteBiometricDataRequest"
3890 />tns:DeleteBiometricData"/>
3891 </wsdl:message>
3892 <wsdl:message name="DeleteBiometricDataResponseMessage">
3893 <wsdl:part name="parameters" element="tns:DeleteBiometricDataResponse"
3894 element="DeleteBiometricDataResponse" />"/>
3895 </wsdl:message>
3896 <wsdl:message name="DeleteSubjectRequestMessage">
3897 <wsdl:part name="DeleteSubjectRequestparameters" element="DeleteSubjectRequest" />tns:DeleteSubject"/>
3898 </wsdl:message>
3899 <wsdl:message name="DeleteSubjectResponseMessage">
3900 <wsdl:part name="parameters" element="tns:DeleteSubjectResponse" element="DeleteSubjectResponse" />"/>
3901 </wsdl:message>
3902 <wsdl:message name="DeleteSubjectFromGalleryRequestMessage">
3903 <wsdl:part name="DeleteSubjectFromGalleryRequestparameters" element="DeleteSubjectFromGalleryRequest"
3904 />tns:DeleteSubjectFromGallery"/>
3905 </wsdl:message>

```

```

3906 <wsdl:message name="DeleteSubjectFromGalleryResponseMessage">
3907 <wsdl:part name="parameters" element="tns:DeleteSubjectFromGalleryResponse"
3908 element="DeleteSubjectFromGalleryResponse" />/>
3909 </wsdl:message>
3910 <wsdl:message name="GetIdentifySubjectResultsRequestMessage">
3911 <wsdl:part name="GetIdentifySubjectResultsRequestparameters" element="GetIdentifySubjectResultsRequest"
3912 />tns:GetIdentifySubjectResults"/>
3913 </wsdl:message>
3914 <wsdl:message name="GetIdentifySubjectResultsResponseMessage">
3915 <wsdl:part name="parameters" element="tns:GetIdentifySubjectResultsResponse"
3916 element="GetIdentifySubjectResultsResponse" />/>
3917 </wsdl:message>
3918 <wsdl:message name="IdentifySubjectRequestMessage">
3919 <wsdl:part name="IdentifySubjectRequestparameters" element="IdentifySubjectRequest" />tns:IdentifySubject"/>
3920 </wsdl:message>
3921 <wsdl:message name="IdentifySubjectResponseMessage">
3922 <wsdl:part name="parameters" element="tns:IdentifySubjectResponse" element="IdentifySubjectResponse" />/>
3923 </wsdl:message>
3924 <wsdl:message name="ListBiographicDataRequestMessage">
3925 <wsdl:part name="ListBiographicDataRequestparameters" element="ListBiographicDataRequest"
3926 />tns:ListBiographicData"/>
3927 </wsdl:message>
3928 <wsdl:message name="ListBiographicDataResponseMessage">
3929 <wsdl:part name="parameters" element="tns:ListBiographicDataResponse" element="ListBiographicDataResponse"
3930 />/>
3931 </wsdl:message>
3932 <wsdl:message name="ListBiometricDataRequestMessage">
3933 <wsdl:part name="ListBiometricDataRequestparameters" element="ListBiometricDataRequest"
3934 />tns:ListBiometricData"/>
3935 </wsdl:message>
3936 <wsdl:message name="ListBiometricDataResponseMessage">
3937 <wsdl:part name="parameters" element="tns:ListBiometricDataResponse" element="ListBiometricDataResponse"
3938 />/>
3939 </wsdl:message>
3940 <wsdl:message name="PerformFusionRequestMessage">
3941 <wsdl:part name="PerformFusionRequestparameters" element="PerformFusionRequest" />tns:PerformFusion"/>
3942 </wsdl:message>
3943 <wsdl:message name="PerformFusionResponseMessage">
3944 <wsdl:part name="parameters" element="tns:PerformFusionResponse" element="PerformFusionResponse" />/>
3945 </wsdl:message>
3946 <wsdl:message name="QueryCapabilitiesRequestMessage">

```

Biasprofile-1.0-cd-01 20-October-2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product


```

3947  <wsdl:part name="QueryCapabilitiesRequestParameters" element="QueryCapabilitiesRequest"
3948  />
3949  </wsdl:message>
3950  <wsdl:message name="QueryCapabilitiesResponseMessage">
3951  <wsdl:part name="parameters" element="tns:QueryCapabilitiesResponse" element="QueryCapabilitiesResponse"
3952  />
3953  </wsdl:message>
3954  <wsdl:message name="RetrieveBiographicInformationRequestMessage">
3955  <wsdl:part name="RetrieveBiographicInformationRequestParameters"
3956  element="RetrieveBiographicInformationRequest" />
3957  </wsdl:message>
3958  <wsdl:message name="RetrieveBiographicInformationResponseMessage">
3959  <wsdl:part name="parameters" element="tns:RetrieveBiographicInformationResponse"
3960  element="RetrieveBiographicInformationResponse" />
3961  </wsdl:message>
3962  <wsdl:message name="RetrieveBiometricInformationRequestMessage">
3963  <wsdl:part name="RetrieveBiometricInformationRequestParameters"
3964  element="RetrieveBiometricInformationRequest" />
3965  </wsdl:message>
3966  <wsdl:message name="RetrieveBiometricInformationResponseMessage">
3967  <wsdl:part name="parameters" element="tns:RetrieveBiometricInformationResponse"
3968  element="RetrieveBiometricInformationResponse" />
3969  </wsdl:message>
3970  <wsdl:message name="SetBiographicDataRequestMessage">
3971  <wsdl:part name="SetBiographicDataRequestParameters" element="SetBiographicDataRequest"
3972  />
3973  </wsdl:message>
3974  <wsdl:message name="SetBiographicDataResponseMessage">
3975  <wsdl:part name="parameters" element="tns:SetBiographicDataResponse" element="SetBiographicDataResponse"
3976  />
3977  </wsdl:message>
3978  <wsdl:message name="SetBiometricDataRequestMessage">
3979  <wsdl:part name="SetBiometricDataRequestParameters" element="SetBiometricDataRequest"
3980  />
3981  </wsdl:message>
3982  <wsdl:message name="SetBiometricDataResponseMessage">
3983  <wsdl:part name="parameters" element="tns:SetBiometricDataResponse" element="SetBiometricDataResponse"
3984  />
3985  </wsdl:message>
3986  <wsdl:message name="TransformBiometricDataRequestMessage">
3987  <wsdl:part name="TransformBiometricDataRequestParameters" element="TransformBiometricDataRequest"
3988  />

```

Biasprofile-1.0-cd-01 20-October-2009

biasprofile-v1.0-csd03 23 February 2011

Copyright © OASIS Open 2009-2011. All Rights Reserved. Standards Track Work Product

```

3989   </wsdl:message>
3990   <wsdl:message name="TransformBiometricDataResponseMessage">
3991     <wsdl:part name="parameters" element="tns:TransformBiometricDataResponse"
3992     element="TransformBiometricDataResponse" /> />
3993   </wsdl:message>
3994   <wsdl:message name="UpdateBiographicDataRequestMessage">
3995     <wsdl:part name="UpdateBiographicDataRequestparameters" element="UpdateBiographicDataRequest"
3996     /> <tns:UpdateBiographicData"/>
3997   </wsdl:message>
3998   <wsdl:message name="UpdateBiographicDataResponseMessage">
3999     <wsdl:part name="parameters" element="tns:UpdateBiographicDataResponse"
4000     element="UpdateBiographicDataResponse" /> />
4001   </wsdl:message>
4002   <wsdl:message name="UpdateBiometricDataRequestMessage">
4003     <wsdl:part name="UpdateBiometricDataRequestparameters" element="UpdateBiometricDataRequest"
4004     /> <tns:UpdateBiometricData"/>
4005   </wsdl:message>
4006   <wsdl:message name="UpdateBiometricDataResponseMessage">
4007     <wsdl:part name="parameters" element="tns:UpdateBiometricDataResponse"
4008     element="UpdateBiometricDataResponse" /> />
4009   </wsdl:message>
4010   <wsdl:message name="VerifySubjectRequestMessage">
4011     <wsdl:part name="VerifySubjectRequestparameters" element="VerifySubjectRequest" /> <tns:VerifySubject"/>
4012   </wsdl:message>
4013   <wsdl:message name="VerifySubjectResponseMessage">
4014     <wsdl:part name="parameters" element="tns:VerifySubjectResponse" element="VerifySubjectResponse" /> />
4015   </wsdl:message>
4016   <wsdl:message name="EnrollRequestMessage">
4017     <wsdl:part name="EnrollRequestparameters" element="EnrollRequest" /> <tns:Enroll"/>
4018   </wsdl:message>
4019   <wsdl:message name="EnrollResponseMessage">
4020     <wsdl:part name="parameters" element="tns:EnrollResponse" element="EnrollResponse" /> />
4021   </wsdl:message>
4022   <wsdl:message name="GetEnrollResultsRequestMessage">
4023     <wsdl:part name="GetEnrollResultsRequestparameters" element="GetEnrollResultsRequest"
4024     /> <tns:GetEnrollResults"/>
4025   </wsdl:message>
4026   <wsdl:message name="GetEnrollResultsResponseMessage">
4027     <wsdl:part name="parameters" element="tns:GetEnrollResultsResponse" element="GetEnrollResultsResponse"
4028     /> />
4029   </wsdl:message>

```

```

4030 <wsdl:message name="GetIdentifyResultsRequestMessage">
4031 <wsdl:part name="GetIdentifyResultsRequestparameters" element="GetIdentifyResultsRequest"
4032 />tns:GetIdentifyResults"/>
4033 </wsdl:message>
4034 <wsdl:message name="GetIdentifyResultsResponseMessage">
4035 <wsdl:part name="parameters" element="tns:GetIdentifyResultsResponse" element="GetIdentifyResultsResponse"
4036 />"/>
4037 </wsdl:message>
4038 <wsdl:message name="GetVerifyResultsRequestMessage">
4039 <wsdl:part name="GetVerifyResultsRequestparameters" element="GetVerifyResultsRequest"
4040 />tns:GetVerifyResults"/>
4041 </wsdl:message>
4042 <wsdl:message name="GetVerifyResultsResponseMessage">
4043 <wsdl:part name="parameters" element="tns:GetVerifyResultsResponse" element="GetVerifyResultsResponse"
4044 />"/>
4045 </wsdl:message>
4046 <wsdl:message name="IdentifyRequestMessage">
4047 <wsdl:part name="IdentifyRequestparameters" element="IdentifyRequest" />tns:Identify"/>
4048 </wsdl:message>
4049 <wsdl:message name="IdentifyResponseMessage">
4050 <wsdl:part name="parameters" element="tns:IdentifyResponse" element="IdentifyResponse" />"/>
4051 </wsdl:message>
4052 <wsdl:message name="RetrieveInformationRequestMessage">
4053 <wsdl:part name="RetrieveInformationRequestparameters" element="RetrieveInformationRequest"
4054 />tns:RetrieveInformation"/>
4055 </wsdl:message>
4056 <wsdl:message name="RetrieveInformationResponseMessage">
4057 <wsdl:part name="parameters" element="tns:RetrieveInformationResponse"
4058 element="RetrieveInformationResponse" />"/>
4059 </wsdl:message>
4060 <wsdl:message name="VerifyRequestMessage">
4061 <wsdl:part name="VerifyRequestparameters" element="VerifyRequest" />tns:Verify"/>
4062 </wsdl:message>
4063 <wsdl:message name="VerifyResponseMessage">
4064 <wsdl:part name="parameters" element="tns:VerifyResponse" element="VerifyResponse" />"/>
4065 </wsdl:message>
4066 <wsdl:portType name="BIAS_v1">
4067 <wsdl:operation name="AddSubjectToGallery">
4068 <wsdl:input name="AddSubjectToGallery" message="tns:AddSubjectToGalleryRequestMessage"
4069 name="AddSubjectToGalleryRequest" />"/>

```

```

4070   <wsdl:output name="AddSubjectToGalleryResponse" message="tns:AddSubjectToGalleryResponseMessage"
4071   name="AddSubjectToGalleryResponse" />
4072   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4073 </wsdl:operation>
4074   <wsdl:operation name="CheckQuality">
4075     <wsdl:input name="CheckQuality" message="tns:CheckQualityRequestMessage" name="CheckQualityRequest"
4076     />
4077     <wsdl:output name="CheckQualityResponse" message="tns:CheckQualityResponseMessage"
4078     name="CheckQualityResponse" />
4079     <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4080   </wsdl:operation>
4081   <wsdl:operation name="ClassifyBiometricData">
4082     <wsdl:input name="ClassifyBiometricData" message="tns:ClassifyBiometricDataRequestMessage"
4083     name="ClassifyBiometricDataRequest" />
4084     <wsdl:output name="ClassifyBiometricDataResponse" message="tns:ClassifyBiometricDataResponseMessage"
4085     name="ClassifyBiometricDataResponse" />
4086     <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4087   </wsdl:operation>
4088   <wsdl:operation name="CreateSubject">
4089     <wsdl:input name="CreateSubject" message="tns:CreateSubjectRequestMessage" name="CreateSubjectRequest"
4090     />
4091     <wsdl:output name="CreateSubjectResponse" message="tns:CreateSubjectResponseMessage"
4092     name="CreateSubjectResponse" />
4093     <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4094   </wsdl:operation>
4095   <wsdl:operation name="DeleteBiographicData">
4096     <wsdl:input name="DeleteBiographicData" message="tns:DeleteBiographicDataRequestMessage"
4097     name="DeleteBiographicDataRequest" />
4098     <wsdl:output name="DeleteBiographicDataResponse" message="tns:DeleteBiographicDataResponseMessage"
4099     name="DeleteBiographicDataResponse" />
4100     <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4101   </wsdl:operation>
4102   <wsdl:operation name="DeleteBiometricData">
4103     <wsdl:input name="DeleteBiometricData" message="tns:DeleteBiometricDataRequestMessage"
4104     name="DeleteBiometricDataRequest" />
4105     <wsdl:output name="DeleteBiometricDataResponse" message="tns:DeleteBiometricDataResponseMessage"
4106     name="DeleteBiometricDataResponse" />
4107     <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4108   </wsdl:operation>
4109   <wsdl:operation name="DeleteSubject">
4110     <wsdl:input name="DeleteSubject" message="tns:DeleteSubjectRequestMessage" name="DeleteSubjectRequest"
4111     />

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

4112   <wsdl:output name="DeleteSubjectResponse" message="tns:DeleteSubjectResponseMessage"
4113   name="DeleteSubjectResponse" />/>
4114   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4115 </wsdl:operation>
4116 <wsdl:operation name="DeleteSubjectFromGallery">
4117   <wsdl:input name="DeleteSubjectFromGallery" message="tns:DeleteSubjectFromGalleryRequestMessage"
4118   name="DeleteSubjectFromGalleryRequest" />/>
4119   <wsdl:output name="DeleteSubjectFromGalleryResponse"
4120   message="tns:DeleteSubjectFromGalleryResponseMessage" name="DeleteSubjectFromGalleryResponse" />/>
4121   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4122 </wsdl:operation>
4123 <wsdl:operation name="GetIdentifySubjectResults">
4124   <wsdl:input name="GetIdentifySubjectResults" message="tns:GetIdentifySubjectResultsRequestMessage"
4125   name="GetIdentifySubjectResultsRequest" />/>
4126   <wsdl:output name="GetIdentifySubjectResultsResponse"
4127   message="tns:GetIdentifySubjectResultsResponseMessage" name="GetIdentifySubjectResultsResponse" />/>
4128   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4129 </wsdl:operation>
4130 <wsdl:operation name="IdentifySubject">
4131   <wsdl:input name="IdentifySubject" message="tns:IdentifySubjectRequestMessage"
4132   name="IdentifySubjectRequest" />/>
4133   <wsdl:output name="IdentifySubjectResponse" message="tns:IdentifySubjectResponseMessage"
4134   name="IdentifySubjectResponse" />/>
4135   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4136 </wsdl:operation>
4137 <wsdl:operation name="ListBiographicData">
4138   <wsdl:input name="ListBiographicData" message="tns:ListBiographicDataRequestMessage"
4139   name="ListBiographicDataRequest" />/>
4140   <wsdl:output name="ListBiographicDataResponse" message="tns:ListBiographicDataResponseMessage"
4141   name="ListBiographicDataResponse" />/>
4142   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4143 </wsdl:operation>
4144 <wsdl:operation name="ListBiometricData">
4145   <wsdl:input name="ListBiometricData" message="tns:ListBiometricDataRequestMessage"
4146   name="ListBiometricDataRequest" />/>
4147   <wsdl:output name="ListBiometricDataResponse" message="tns:ListBiometricDataResponseMessage"
4148   name="ListBiometricDataResponse" />/>
4149   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4150 </wsdl:operation>
4151 <wsdl:operation name="PerformFusion">
4152   <wsdl:input name="PerformFusion" message="tns:PerformFusionRequestMessage"
4153   name="PerformFusionRequest" />/>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

4154   <wsdl:output name="PerformFusionResponse" message="tns:PerformFusionResponseMessage"
4155   name="PerformFusionResponse" />/>
4156   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage"/>
4157 </wsdl:operation>
4158 <wsdl:operation name="QueryCapabilities">
4159   <wsdl:input name="QueryCapabilities" message="tns:QueryCapabilitiesRequestMessage"
4160   name="QueryCapabilitiesRequest" />/>
4161   <wsdl:output name="QueryCapabilitiesResponse" message="tns:QueryCapabilitiesResponseMessage"
4162   name="QueryCapabilitiesResponse" />/>
4163   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage"/>
4164 </wsdl:operation>
4165 <wsdl:operation name="RetrieveBiographicInformation">
4166   <wsdl:input name="RetrieveBiographicInformation"
4167   message="tns:RetrieveBiographicInformationRequestMessage" name="RetrieveBiographicInformationRequest" />/>
4168   <wsdl:output name="RetrieveBiographicInformationResponse"
4169   message="tns:RetrieveBiographicInformationResponseMessage" name="RetrieveBiographicInformationResponse"
4170   />/>
4171   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage"/>
4172 </wsdl:operation>
4173 <wsdl:operation name="RetrieveBiometricInformation">
4174   <wsdl:input name="RetrieveBiometricInformation" message="tns:RetrieveBiometricInformationRequestMessage"
4175   name="RetrieveBiometricInformationRequest" />/>
4176   <wsdl:output name="RetrieveBiometricInformationResponse"
4177   message="tns:RetrieveBiometricInformationResponseMessage" name="RetrieveBiometricInformationResponse"
4178   />/>
4179   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage"/>
4180 </wsdl:operation>
4181 <wsdl:operation name="SetBiographicData">
4182   <wsdl:input name="SetBiographicData" message="tns:SetBiographicDataRequestMessage"
4183   name="SetBiographicDataRequest" />/>
4184   <wsdl:output name="SetBiographicDataResponse" message="tns:SetBiographicDataResponseMessage"
4185   name="SetBiographicDataResponse" />/>
4186   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage"/>
4187 </wsdl:operation>
4188 <wsdl:operation name="SetBiometricData">
4189   <wsdl:input name="SetBiometricData" message="tns:SetBiometricDataRequestMessage"
4190   name="SetBiometricDataRequest" />/>
4191   <wsdl:output name="SetBiometricDataResponse" message="tns:SetBiometricDataResponseMessage"
4192   name="SetBiometricDataResponse" />/>
4193   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage"/>
4194 </wsdl:operation>
4195 <wsdl:operation name="TransformBiometricData">

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

4196   <wsdl:input name="TransformBiometricData" message="tns:TransformBiometricDataRequestMessage"
4197   name="TransformBiometricDataRequest" />/>
4198   <wsdl:output name="TransformBiometricDataResponse"
4199   message="tns:TransformBiometricDataResponseMessage" name="TransformBiometricDataResponse" />/>
4200   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4201 </wsdl:operation>
4202 <wsdl:operation name="UpdateBiographicData">
4203   <wsdl:input name="UpdateBiographicData" message="tns:UpdateBiographicDataRequestMessage"
4204   name="UpdateBiographicDataRequest" />/>
4205   <wsdl:output name="UpdateBiographicDataResponse" message="tns:UpdateBiographicDataResponseMessage"
4206   name="UpdateBiographicDataResponse" />/>
4207   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4208 </wsdl:operation>
4209 <wsdl:operation name="UpdateBiometricData">
4210   <wsdl:input name="UpdateBiometricData" message="tns:UpdateBiometricDataRequestMessage"
4211   name="UpdateBiometricDataRequest" />/>
4212   <wsdl:output name="UpdateBiometricDataResponse" message="tns:UpdateBiometricDataResponseMessage"
4213   name="UpdateBiometricDataResponse" />/>
4214   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4215 </wsdl:operation>
4216 <wsdl:operation name="VerifySubject">
4217   <wsdl:input name="VerifySubject" message="tns:VerifySubjectRequestMessage" name="VerifySubjectRequest"
4218   />/>
4219   <wsdl:output name="VerifySubjectResponse" message="tns:VerifySubjectResponseMessage"
4220   name="VerifySubjectResponse" />/>
4221   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4222 </wsdl:operation>
4223 <wsdl:operation name="Enroll">
4224   <wsdl:input name="Enroll" message="tns:EnrollRequestMessage" name="EnrollRequest" />/>
4225   <wsdl:output name="EnrollResponse" message="tns:EnrollResponseMessage" name="EnrollResponse" />/>
4226   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4227 </wsdl:operation>
4228 <wsdl:operation name="GetEnrollResults">
4229   <wsdl:input name="GetEnrollResults" message="tns:GetEnrollResultsRequestMessage"
4230   name="GetEnrollResultsRequest" />/>
4231   <wsdl:output name="GetEnrollResultsResponse" message="tns:GetEnrollResultsResponseMessage"
4232   name="GetEnrollResultsResponse" />/>
4233   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4234 </wsdl:operation>
4235 <wsdl:operation name="GetIdentifyResults">
4236   <wsdl:input name="GetIdentifyResults" message="tns:GetIdentifyResultsRequestMessage"
4237   name="GetIdentifyResultsRequest" />/>

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

```

4238   <wsdl:output name="GetIdentifyResultsResponse" message="tns:GetIdentifyResultsResponseMessage"
4239   name="GetIdentifyResultsResponse" />
4240   <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4241 </wsdl:operation>
4242   <wsdl:operation name="GetVerifyResults">
4243     <wsdl:input name="GetVerifyResults" message="tns:GetVerifyResultsRequestMessage"
4244     name="GetVerifyResultsRequest" />
4245     <wsdl:output name="GetVerifyResultsResponse" message="tns:GetVerifyResultsResponseMessage"
4246     name="GetVerifyResultsResponse" />
4247     <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4248   </wsdl:operation>
4249   <wsdl:operation name="Identify">
4250     <wsdl:input name="Identify" message="tns:IdentifyRequestMessage" name="IdentifyRequest" />
4251     <wsdl:output name="IdentifyResponse" message="tns:IdentifyResponseMessage" name="IdentifyResponse" />
4252     <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4253   </wsdl:operation>
4254   <wsdl:operation name="RetrieveInformation">
4255     <wsdl:input name="RetrieveInformation" message="tns:RetrieveInformationRequestMessage"
4256     name="RetrieveInformationRequest" />
4257     <wsdl:output name="RetrieveInformationResponse" message="tns:RetrieveInformationResponseMessage"
4258     name="RetrieveInformationResponse" />
4259     <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4260   </wsdl:operation>
4261   <wsdl:operation name="Verify">
4262     <wsdl:input name="Verify" message="tns:VerifyRequestMessage" name="VerifyRequest" />
4263     <wsdl:output name="VerifyResponse" message="tns:VerifyResponseMessage" name="VerifyResponse" />
4264     <wsdl:fault name="BIASFault" message="tns:BIASFaultMessage" />
4265   </wsdl:operation>
4266 </wsdl:portType>
4267   <wsdl:binding type="tns:BIAS_v1" name="BIAS_v1HttpBinding" type="tns:BIAS_v1">
4268     <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http" />
4269     <wsdl:operation name="AddSubjectToGallery">
4270       <soap:operation soapAction="AddSubjectToGallery" />
4271       <wsdl:input name="AddSubjectToGalleryRequestAddSubjectToGallery">
4272         <soap:body use="literal" />
4273       </wsdl:input>
4274       <wsdl:output name="AddSubjectToGalleryResponse">
4275         <soap:body use="literal" />
4276       </wsdl:output>
4277       <wsdl:fault name="BIASFault" />

```

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

Formatted: Space Before: 4 pt, After: 4 pt,
Adjust space between Latin and Asian text,
Adjust space between Asian text and numbers

4278 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4279 ~~—</wsdl:fault>~~
 4280 ~~—</wsdl:operation>~~
 4281 ~~—<wsdl:operation name="CheckQuality">~~
 4282 ~~—<soap:operation soapAction="CheckQuality"/>~~
 4283 ~~—<wsdl:input name="CheckQualityRequestCheckQuality">~~
 4284 ~~—<soap:body use="literal"/>~~
 4285 ~~—</wsdl:input>~~
 4286 ~~—<wsdl:output name="CheckQualityResponse">~~
 4287 ~~—<soap:body use="literal"/>~~
 4288 ~~—</wsdl:output>~~
 4289 ~~—<wsdl:fault name="BIASFault">~~
 4290 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4291 ~~—</wsdl:fault>~~
 4292 ~~—</wsdl:operation>~~
 4293 ~~—<wsdl:operation name="ClassifyBiometricData">~~
 4294 ~~—<soap:operation soapAction="ClassifyBiometricData"/>~~
 4295 ~~—<wsdl:input name="ClassifyBiometricDataRequestClassifyBiometricData">~~
 4296 ~~—<soap:body use="literal"/>~~
 4297 ~~—</wsdl:input>~~
 4298 ~~—<wsdl:output name="ClassifyBiometricDataResponse">~~
 4299 ~~—<soap:body use="literal"/>~~
 4300 ~~—</wsdl:output>~~
 4301 ~~—<wsdl:fault name="BIASFault">~~
 4302 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4303 ~~—</wsdl:fault>~~
 4304 ~~—</wsdl:operation>~~
 4305 ~~—<wsdl:operation name="CreateSubject">~~
 4306 ~~—<soap:operation soapAction="CreateSubject"/>~~
 4307 ~~—<wsdl:input name="CreateSubjectRequestCreateSubject">~~
 4308 ~~—<soap:body use="literal"/>~~
 4309 ~~—</wsdl:input>~~
 4310 ~~—<wsdl:output name="CreateSubjectResponse">~~
 4311 ~~—<soap:body use="literal"/>~~
 4312 ~~—</wsdl:output>~~
 4313 ~~—<wsdl:fault name="BIASFault">~~
 4314 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4315 ~~—</wsdl:fault>~~
 4316 ~~—</wsdl:operation>~~

4317 ~~—~~<wsdl:operation name="DeleteBiographicData">
 4318 ~~—~~<soap:operation soapAction="DeleteBiographicData" ~~"/>"/>~~>
 4319 ~~—~~<wsdl:input name="DeleteBiographicDataRequestDeleteBiographicData">
 4320 ~~—~~<soap:body use="literal" ~~"/>"/>~~>
 4321 ~~—~~</wsdl:input>
 4322 ~~—~~<wsdl:output name="DeleteBiographicDataResponse">
 4323 ~~—~~<soap:body use="literal" ~~"/>"/>~~>
 4324 ~~—~~</wsdl:output>
 4325 ~~—~~<wsdl:fault name="~~"~~"BIASFault" ~~>">~~>
 4326 ~~—~~<soap:fault name="~~"~~"BIASFault" ~~"~~ use="~~"~~"literal" ~~"/>"/>~~>
 4327 ~~—~~</wsdl:fault>
 4328 ~~—~~</wsdl:operation>
 4329 ~~—~~<wsdl:operation name="DeleteBiometricData">
 4330 ~~—~~<soap:operation soapAction="DeleteBiometricData" ~~"/>"/>~~>
 4331 ~~—~~<wsdl:input name="DeleteBiometricDataRequestDeleteBiometricData">
 4332 ~~—~~<soap:body use="literal" ~~"/>"/>~~>
 4333 ~~—~~</wsdl:input>
 4334 ~~—~~<wsdl:output name="DeleteBiometricDataResponse">
 4335 ~~—~~<soap:body use="literal" ~~"/>"/>~~>
 4336 ~~—~~</wsdl:output>
 4337 ~~—~~<wsdl:fault name="~~"~~"BIASFault" ~~>">~~>
 4338 ~~—~~<soap:fault name="~~"~~"BIASFault" ~~"~~ use="~~"~~"literal" ~~"/>"/>~~>
 4339 ~~—~~</wsdl:fault>
 4340 ~~—~~</wsdl:operation>
 4341 ~~—~~<wsdl:operation name="DeleteSubject">
 4342 ~~—~~<soap:operation soapAction="DeleteSubject" ~~"/>"/>~~>
 4343 ~~—~~<wsdl:input name="DeleteSubjectRequestDeleteSubject">
 4344 ~~—~~<soap:body use="literal" ~~"/>"/>~~>
 4345 ~~—~~</wsdl:input>
 4346 ~~—~~<wsdl:output name="DeleteSubjectResponse">
 4347 ~~—~~<soap:body use="literal" ~~"/>"/>~~>
 4348 ~~—~~</wsdl:output>
 4349 ~~—~~<wsdl:fault name="~~"~~"BIASFault" ~~>">~~>
 4350 ~~—~~<soap:fault name="~~"~~"BIASFault" ~~"~~ use="~~"~~"literal" ~~"/>"/>~~>
 4351 ~~—~~</wsdl:fault>
 4352 ~~—~~</wsdl:operation>
 4353 ~~—~~<wsdl:operation name="DeleteSubjectFromGallery">
 4354 ~~—~~<soap:operation soapAction="DeleteSubjectFromGallery" ~~"/>"/>~~>
 4355 ~~—~~<wsdl:input name="DeleteSubjectFromGalleryRequestDeleteSubjectFromGallery">

4356 ~~—<soap:body use="literal"/>~~
 4357 ~~—</wsdl:input>~~
 4358 ~~—<wsdl:output name="DeleteSubjectFromGalleryResponse">~~
 4359 ~~—<soap:body use="literal"/>~~
 4360 ~~—</wsdl:output>~~
 4361 ~~—<wsdl:fault name="BIASFault">~~
 4362 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4363 ~~—</wsdl:fault>~~
 4364 ~~—</wsdl:operation>~~
 4365 ~~—<wsdl:operation name="GetIdentifySubjectResults">~~
 4366 ~~—<soap:operation soapAction="GetIdentifySubjectResults"/>~~
 4367 ~~—<wsdl:input name="GetIdentifySubjectResultsRequestGetIdentifySubjectResults">~~
 4368 ~~—<soap:body use="literal"/>~~
 4369 ~~—</wsdl:input>~~
 4370 ~~—<wsdl:output name="GetIdentifySubjectResultsResponse">~~
 4371 ~~—<soap:body use="literal"/>~~
 4372 ~~—</wsdl:output>~~
 4373 ~~—<wsdl:fault name="BIASFault">~~
 4374 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4375 ~~—</wsdl:fault>~~
 4376 ~~—</wsdl:operation>~~
 4377 ~~—<wsdl:operation name="IdentifySubject">~~
 4378 ~~—<soap:operation soapAction="IdentifySubject"/>~~
 4379 ~~—<wsdl:input name="IdentifySubjectRequestIdentifySubject">~~
 4380 ~~—<soap:body use="literal"/>~~
 4381 ~~—</wsdl:input>~~
 4382 ~~—<wsdl:output name="IdentifySubjectResponse">~~
 4383 ~~—<soap:body use="literal"/>~~
 4384 ~~—</wsdl:output>~~
 4385 ~~—<wsdl:fault name="BIASFault">~~
 4386 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4387 ~~—</wsdl:fault>~~
 4388 ~~—</wsdl:operation>~~
 4389 ~~—<wsdl:operation name="ListBiographicData">~~
 4390 ~~—<soap:operation soapAction="ListBiographicData"/>~~
 4391 ~~—<wsdl:input name="ListBiographicDataRequestListBiographicData">~~
 4392 ~~—<soap:body use="literal"/>~~
 4393 ~~—</wsdl:input>~~
 4394 ~~—<wsdl:output name="ListBiographicDataResponse">~~

4395 ~~—<soap:body use="literal"/>~~
 4396 ~~—</wsdl:output>~~
 4397 ~~—<wsdl:fault name="BIASFault">~~
 4398 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4399 ~~—</wsdl:fault>~~
 4400 ~~—</wsdl:operation>~~
 4401 ~~—<wsdl:operation name="ListBiometricData">~~
 4402 ~~—<soap:operation soapAction="ListBiometricData"/>~~
 4403 ~~—<wsdl:input name="ListBiometricDataRequestListBiometricData">~~
 4404 ~~—<soap:body use="literal"/>~~
 4405 ~~—</wsdl:input>~~
 4406 ~~—<wsdl:output name="ListBiometricDataResponse">~~
 4407 ~~—<soap:body use="literal"/>~~
 4408 ~~—</wsdl:output>~~
 4409 ~~—<wsdl:fault name="BIASFault">~~
 4410 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4411 ~~—</wsdl:fault>~~
 4412 ~~—</wsdl:operation>~~
 4413 ~~—<wsdl:operation name="PerformFusion">~~
 4414 ~~—<soap:operation soapAction="PerformFusion"/>~~
 4415 ~~—<wsdl:input name="PerformFusionRequestPerformFusion">~~
 4416 ~~—<soap:body use="literal"/>~~
 4417 ~~—</wsdl:input>~~
 4418 ~~—<wsdl:output name="PerformFusionResponse">~~
 4419 ~~—<soap:body use="literal"/>~~
 4420 ~~—</wsdl:output>~~
 4421 ~~—<wsdl:fault name="BIASFault">~~
 4422 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4423 ~~—</wsdl:fault>~~
 4424 ~~—</wsdl:operation>~~
 4425 ~~—<wsdl:operation name="QueryCapabilities">~~
 4426 ~~—<soap:operation soapAction="QueryCapabilities"/>~~
 4427 ~~—<wsdl:input name="QueryCapabilitiesRequestQueryCapabilities">~~
 4428 ~~—<soap:body use="literal"/>~~
 4429 ~~—</wsdl:input>~~
 4430 ~~—<wsdl:output name="QueryCapabilitiesResponse">~~
 4431 ~~—<soap:body use="literal"/>~~
 4432 ~~—</wsdl:output>~~
 4433 ~~—<wsdl:fault name="BIASFault">~~

```

4434 <soap:fault name="BIASFault" use="literal"/>
4435 </wsdl:fault>
4436 </wsdl:operation>
4437 <wsdl:operation name="RetrieveBiographicInformation">
4438 <soap:operation soapAction="RetrieveBiographicInformation"/>
4439 <wsdl:input name="RetrieveBiographicInformationRequestRetrieveBiographicInformation">
4440 <soap:body use="literal"/>
4441 </wsdl:input>
4442 <wsdl:output name="RetrieveBiographicInformationResponse">
4443 <soap:body use="literal"/>
4444 </wsdl:output>
4445 <wsdl:fault name="BIASFault">
4446 <soap:fault name="BIASFault" use="literal"/>
4447 </wsdl:fault>
4448 </wsdl:operation>
4449 <wsdl:operation name="RetrieveBiometricInformation">
4450 <soap:operation soapAction="RetrieveBiometricInformation"/>
4451 <wsdl:input name="RetrieveBiometricInformationRequestRetrieveBiometricInformation">
4452 <soap:body use="literal"/>
4453 </wsdl:input>
4454 <wsdl:output name="RetrieveBiometricInformationResponse">
4455 <soap:body use="literal"/>
4456 </wsdl:output>
4457 <wsdl:fault name="BIASFault">
4458 <soap:fault name="BIASFault" use="literal"/>
4459 </wsdl:fault>
4460 </wsdl:operation>
4461 <wsdl:operation name="SetBiographicData">
4462 <soap:operation soapAction="SetBiographicData"/>
4463 <wsdl:input name="SetBiographicDataRequestSetBiographicData">
4464 <soap:body use="literal"/>
4465 </wsdl:input>
4466 <wsdl:output name="SetBiographicDataResponse">
4467 <soap:body use="literal"/>
4468 </wsdl:output>
4469 <wsdl:fault name="BIASFault">
4470 <soap:fault name="BIASFault" use="literal"/>
4471 </wsdl:fault>
4472 </wsdl:operation>

```

4473 ~~—<wsdl:operation name="SetBiometricData">~~
 4474 ~~—<soap:operation soapAction="SetBiometricData" />~~
 4475 ~~—<wsdl:input name="SetBiometricDataRequestSetBiometricData">~~
 4476 ~~—<soap:body use="literal" />~~
 4477 ~~—</wsdl:input>~~
 4478 ~~—<wsdl:output name="SetBiometricDataResponse">~~
 4479 ~~—<soap:body use="literal" />~~
 4480 ~~—</wsdl:output>~~
 4481 ~~—<wsdl:fault name="BIASFault">~~
 4482 ~~—<soap:fault name="BIASFault" use="literal" />~~
 4483 ~~—</wsdl:fault>~~
 4484 ~~—</wsdl:operation>~~
 4485 ~~—<wsdl:operation name="TransformBiometricData">~~
 4486 ~~—<soap:operation soapAction="TransformBiometricData" />~~
 4487 ~~—<wsdl:input name="TransformBiometricDataRequestTransformBiometricData">~~
 4488 ~~—<soap:body use="literal" />~~
 4489 ~~—</wsdl:input>~~
 4490 ~~—<wsdl:output name="TransformBiometricDataResponse">~~
 4491 ~~—<soap:body use="literal" />~~
 4492 ~~—</wsdl:output>~~
 4493 ~~—<wsdl:fault name="BIASFault">~~
 4494 ~~—<soap:fault name="BIASFault" use="literal" />~~
 4495 ~~—</wsdl:fault>~~
 4496 ~~—</wsdl:operation>~~
 4497 ~~—<wsdl:operation name="UpdateBiographicData">~~
 4498 ~~—<soap:operation soapAction="UpdateBiographicData" />~~
 4499 ~~—<wsdl:input name="UpdateBiographicDataRequestUpdateBiographicData">~~
 4500 ~~—<soap:body use="literal" />~~
 4501 ~~—</wsdl:input>~~
 4502 ~~—<wsdl:output name="UpdateBiographicDataResponse">~~
 4503 ~~—<soap:body use="literal" />~~
 4504 ~~—</wsdl:output>~~
 4505 ~~—<wsdl:fault name="BIASFault">~~
 4506 ~~—<soap:fault name="BIASFault" use="literal" />~~
 4507 ~~—</wsdl:fault>~~
 4508 ~~—</wsdl:operation>~~
 4509 ~~—<wsdl:operation name="UpdateBiometricData">~~
 4510 ~~—<soap:operation soapAction="UpdateBiometricData" />~~
 4511 ~~—<wsdl:input name="UpdateBiometricDataRequestUpdateBiometricData">~~

4512 ~~—<soap:body use="literal"/>~~
 4513 ~~—</wsdl:input>~~
 4514 ~~—<wsdl:output name="UpdateBiometricDataResponse">~~
 4515 ~~—<soap:body use="literal"/>~~
 4516 ~~—</wsdl:output>~~
 4517 ~~—<wsdl:fault name="BIASFault">~~
 4518 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4519 ~~—</wsdl:fault>~~
 4520 ~~—</wsdl:operation>~~
 4521 ~~—<wsdl:operation name="VerifySubject">~~
 4522 ~~—<soap:operation soapAction="VerifySubject"/>~~
 4523 ~~—<wsdl:input name="VerifySubjectRequestVerifySubject">~~
 4524 ~~—<soap:body use="literal"/>~~
 4525 ~~—</wsdl:input>~~
 4526 ~~—<wsdl:output name="VerifySubjectResponse">~~
 4527 ~~—<soap:body use="literal"/>~~
 4528 ~~—</wsdl:output>~~
 4529 ~~—<wsdl:fault name="BIASFault">~~
 4530 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4531 ~~—</wsdl:fault>~~
 4532 ~~—</wsdl:operation>~~
 4533 ~~—<wsdl:operation name="Enroll">~~
 4534 ~~—<soap:operation soapAction="Enroll"/>~~
 4535 ~~—<wsdl:input name="EnrollRequestEnroll">~~
 4536 ~~—<soap:body use="literal"/>~~
 4537 ~~—</wsdl:input>~~
 4538 ~~—<wsdl:output name="EnrollResponse">~~
 4539 ~~—<soap:body use="literal"/>~~
 4540 ~~—</wsdl:output>~~
 4541 ~~—<wsdl:fault name="BIASFault">~~
 4542 ~~—<soap:fault name="BIASFault" use="literal"/>~~
 4543 ~~—</wsdl:fault>~~
 4544 ~~—</wsdl:operation>~~
 4545 ~~—<wsdl:operation name="GetEnrollResults">~~
 4546 ~~—<soap:operation soapAction="GetEnrollResults"/>~~
 4547 ~~—<wsdl:input name="GetEnrollResultsRequestGetEnrollResults">~~
 4548 ~~—<soap:body use="literal"/>~~
 4549 ~~—</wsdl:input>~~
 4550 ~~—<wsdl:output name="GetEnrollResultsResponse">~~

```

4551 <soap:body use="literal"/>
4552 </wsdl:output>
4553 <wsdl:fault name="BIASFault">
4554 <soap:fault name="BIASFault" use="literal"/>
4555 </wsdl:fault>
4556 </wsdl:operation>
4557 <wsdl:operation name="GetIdentifyResults">
4558 <soap:operation soapAction="GetIdentifyResults"/>
4559 <wsdl:input name="GetIdentifyResultsRequestGetIdentifyResults">
4560 <soap:body use="literal"/>
4561 </wsdl:input>
4562 <wsdl:output name="GetIdentifyResultsResponse">
4563 <soap:body use="literal"/>
4564 </wsdl:output>
4565 <wsdl:fault name="BIASFault">
4566 <soap:fault name="BIASFault" use="literal"/>
4567 </wsdl:fault>
4568 </wsdl:operation>
4569 <wsdl:operation name="GetVerifyResults">
4570 <soap:operation soapAction="GetVerifyResults"/>
4571 <wsdl:input name="GetVerifyResultsRequestGetVerifyResults">
4572 <soap:body use="literal"/>
4573 </wsdl:input>
4574 <wsdl:output name="GetVerifyResultsResponse">
4575 <soap:body use="literal"/>
4576 </wsdl:output>
4577 <wsdl:fault name="BIASFault">
4578 <soap:fault name="BIASFault" use="literal"/>
4579 </wsdl:fault>
4580 </wsdl:operation>
4581 <wsdl:operation name="Identify">
4582 <soap:operation soapAction="Identify"/>
4583 <wsdl:input name="IdentifyRequestIdentify">
4584 <soap:body use="literal"/>
4585 </wsdl:input>
4586 <wsdl:output name="IdentifyResponse">
4587 <soap:body use="literal"/>
4588 </wsdl:output>
4589 <wsdl:fault name="BIASFault">

```



```

4590 <soap:fault name="BIASFault" use="literal"/>
4591 </wsdl:fault>
4592 </wsdl:operation>
4593 <wsdl:operation name="RetrieveInformation">
4594 <soap:operation soapAction="RetrieveInformation"/>
4595 <wsdl:input name="RetrieveInformationRequestRetrieveInformation">
4596 <soap:body use="literal"/>
4597 </wsdl:input>
4598 <wsdl:output name="RetrieveInformationResponse">
4599 <soap:body use="literal"/>
4600 </wsdl:output>
4601 <wsdl:fault name="BIASFault">
4602 <soap:fault name="BIASFault" use="literal"/>
4603 </wsdl:fault>
4604 </wsdl:operation>
4605 <wsdl:operation name="Verify">
4606 <soap:operation soapAction="Verify"/>
4607 <wsdl:input name="VerifyRequestVerify">
4608 <soap:body use="literal"/>
4609 </wsdl:input>
4610 <wsdl:output name="VerifyResponse">
4611 <soap:body use="literal"/>
4612 </wsdl:output>
4613 <wsdl:fault name="BIASFault">
4614 <soap:fault name="BIASFault" use="literal"/>
4615 </wsdl:fault>
4616 </wsdl:operation>
4617 </wsdl:binding>
4618 <wsdl:service name="BIAS_v1">
4619 <wsdl:port name="BIAS_v1HttpBindingPort" binding="tns:BIAS_v1HttpBinding">
4620 <soap:address location="http://your_URI/IRI_to_your_BIAS_implementation"/>
4621 </wsdl:port>
4622 </wsdl:service>
4623 </wsdl:definitions>
4624
4625

```

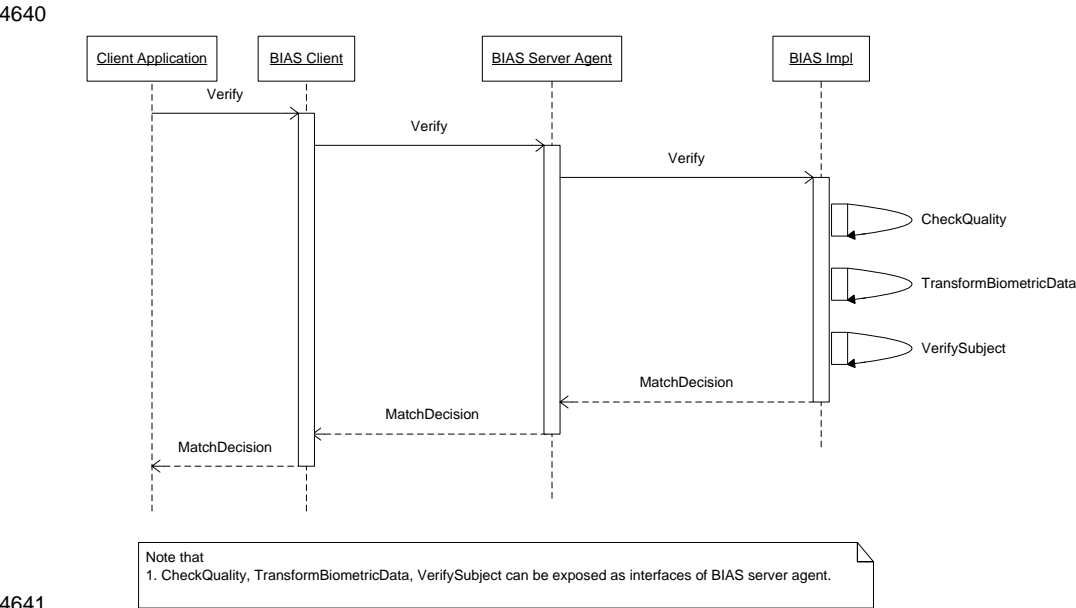
4626 **Annex B. Use Cases (non-normative)**

4627 The intent of this annex is to provide operational sequence diagrams / flow charts that show how the
4628 higher level usage scenarios within ~~INCITS-BIAS~~[\[INCITS-BIAS\]](#) could be implemented using the BIAS
4629 SOAP profile. The following use cases are given:

- 4630 • Verification (synchronous/aggregate)
4631 • Verification (asynchronous/aggregate)
4632 • Verification (primitive)
4633 • Identification (primitive)
4634 • Enrollment (aggregate)
4635 • Enrollment (primitive)

4636 **B.1 Verification Use Case**

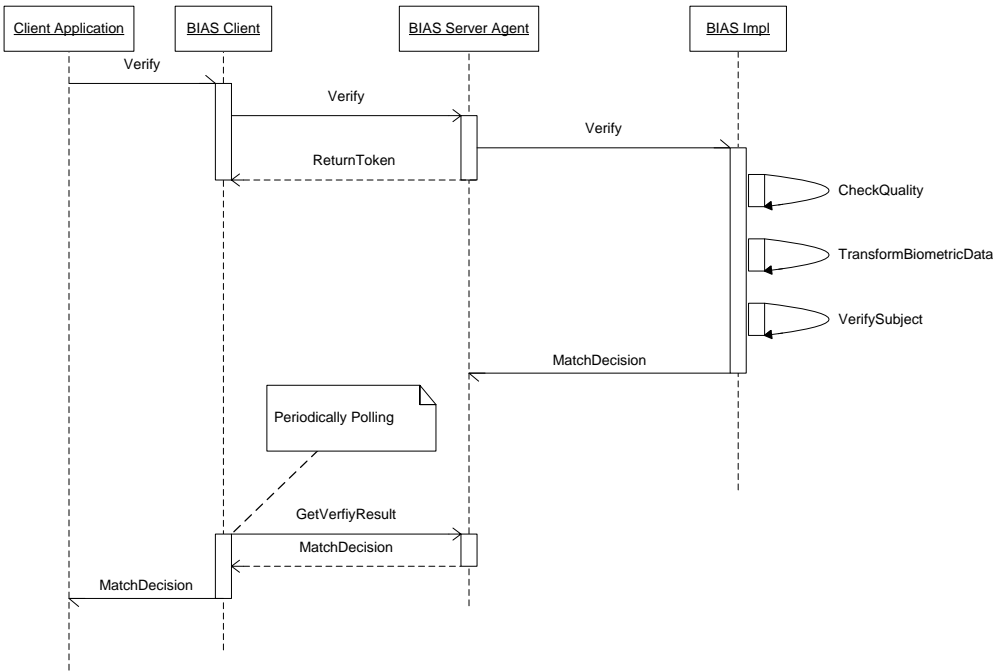
4637 This use case uses the aggregate Verify operation in which a single request results in some set of
4638 operations (in this case, a series of primitive BIAS operations) being performed by the BIAS service
4639 provider.



4643
4644
4645
4646

B.2 Asynchronous Verification Use Case

In this use case, the requester issues two requests – the BIAS Verify request to initiate the operation followed by a BIAS GetVerifyResult request to retrieve the results of that operation.



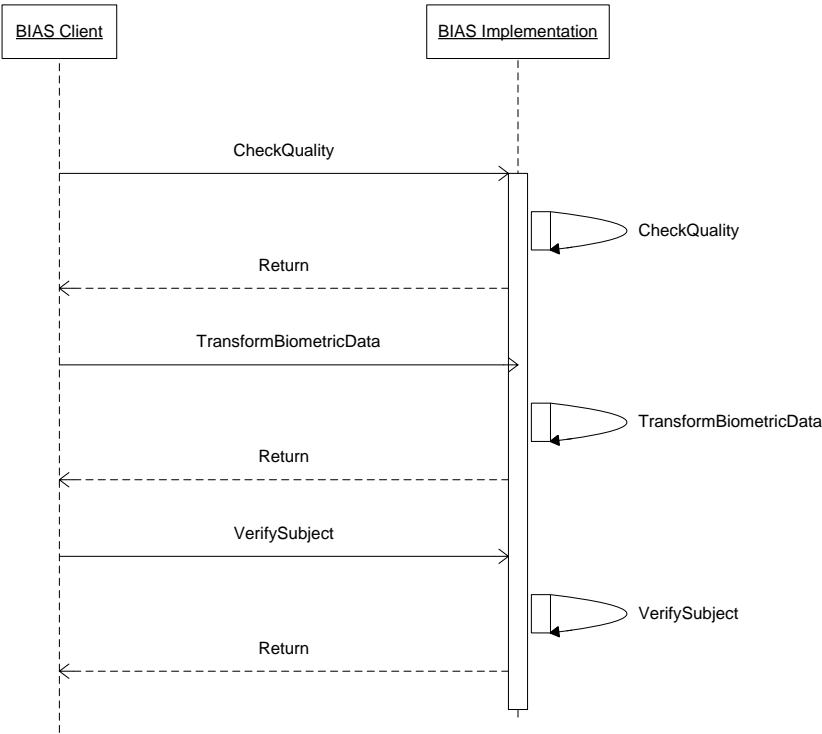
Note that
1. CheckQuality, TransformBiometricData, VerifySubject can be exposed as interfaces of BIAS server agent.

4647
4648
4649

4650
4651
4652
4653
4654

B.3 Primitive Verification Use Case

In this use case, the verification operation is performed as a series of requests using the BIAS primitive operations. In this case, the client rather than the service provider controls the workflow of the higher level operation.

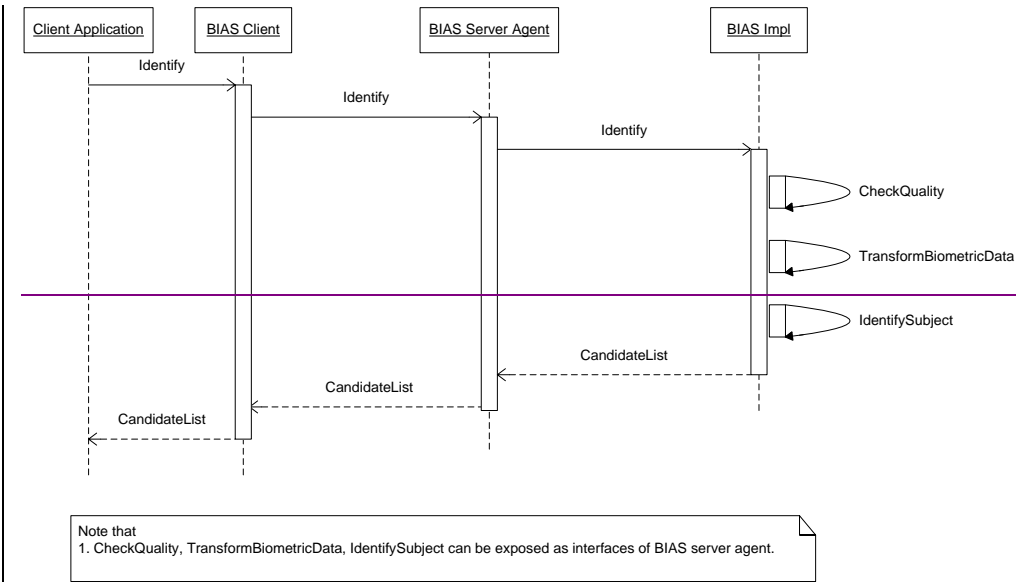


4655
4656

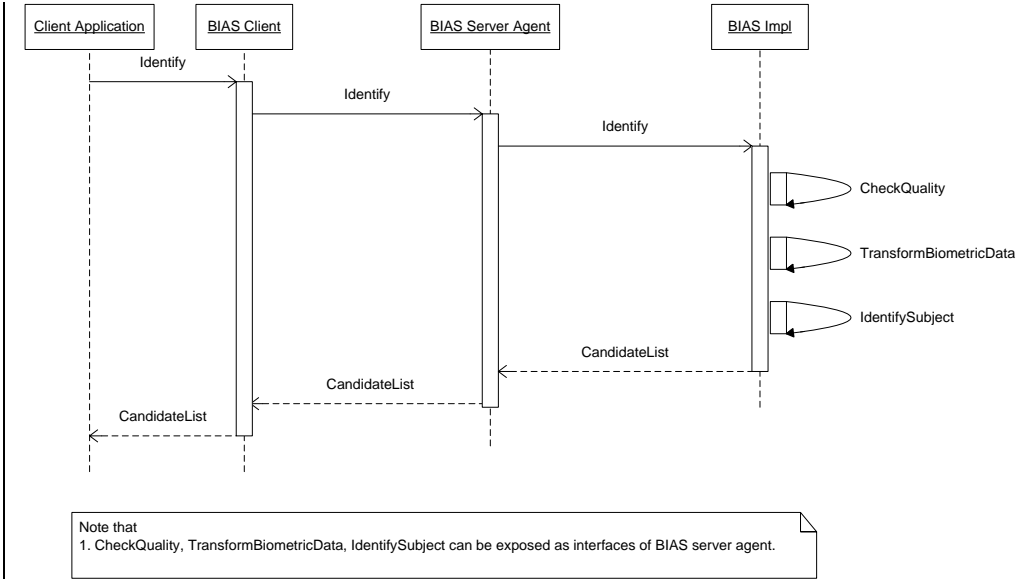
4657 **B.4 Identification Use Case**

4658 This use case uses the aggregate Identify operation in which a single request results in some set of
4659 operations (in this case, a series of primitive BIAS operations) being performed by the BIAS service
4660 provider.

4661
4662
4663



4664

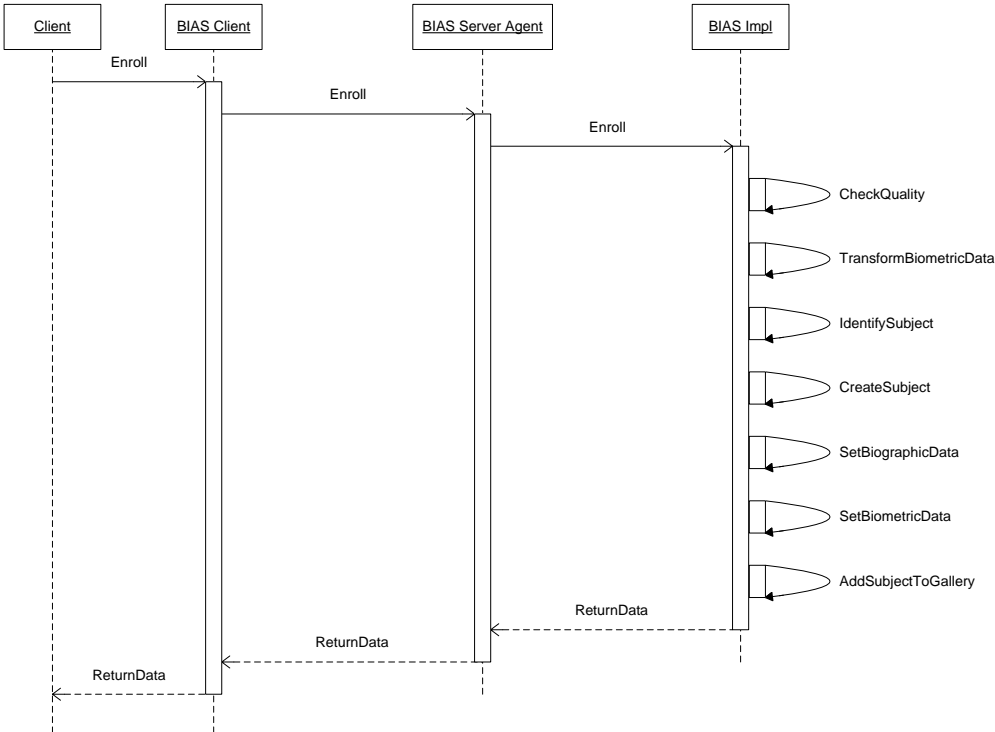


4665
4666

4667
4668
4669
4670
4671
4672
4673
4674

B.5 Biometric Enrollment Use Case

This use case uses the aggregate Enroll operation in which a single request results in some set of operations (in this case, a series of primitive BIAS operations) being performed by the BIAS service provider. Here, if the result of the IdentifySubject is no matches found, then the subject is added to the gallery. If a match had been found then other logic may have been applied (e.g., return candidate list, add encounter for existing subject, etc.).

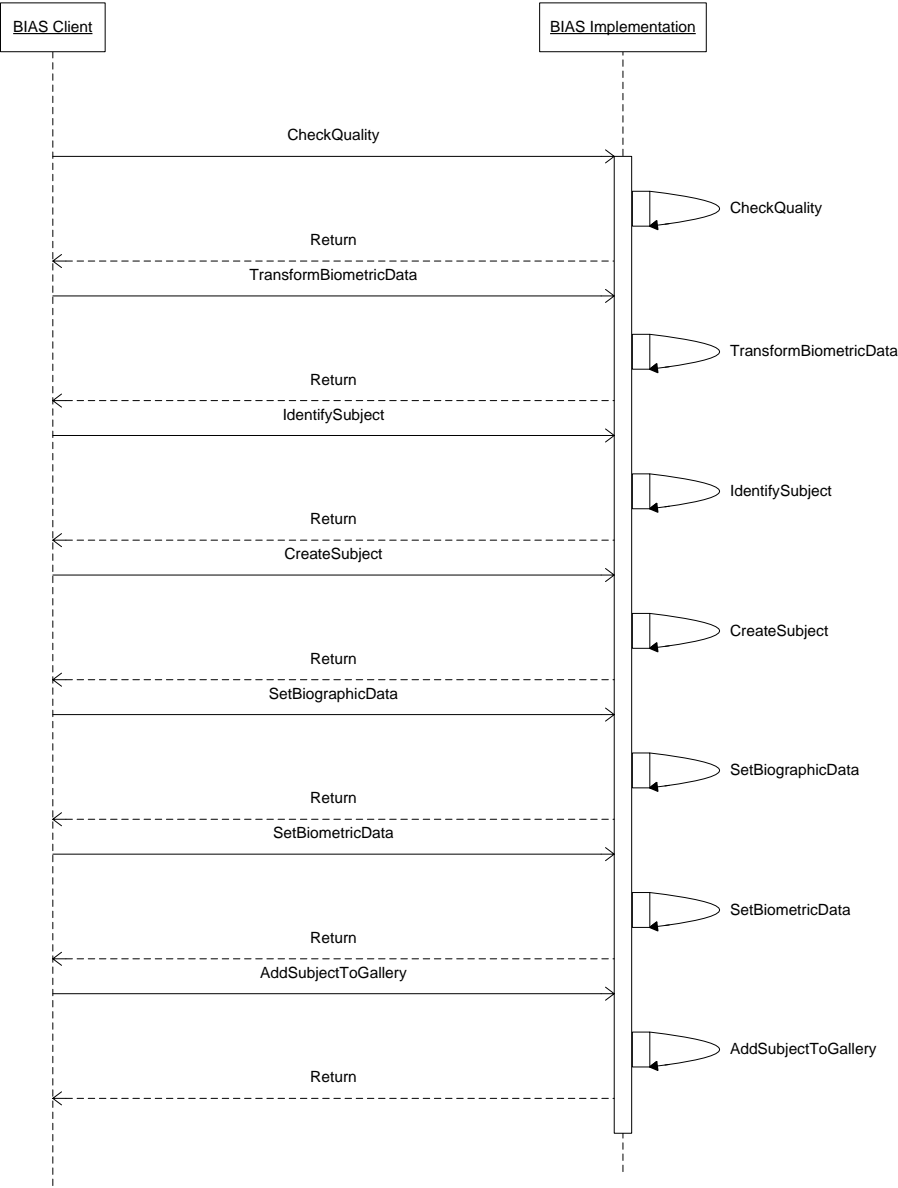


4675
4676
4677

4678
4679
4680
4681
4682

B.6 Primitive Enrollment Use Case

In this use case, the enrollment operation is performed as a series of requests using the BIAS primitive operations. In this case, the client rather than the service provider controls the workflow of the higher level operation.



4683

4684

4685

4686

4687

4692

4693

4694

Formatted: Font color: Auto

4707

4708

Formatted: Font color: Auto

```
4722         </soap:Body>
4723     </soap:Envelope>

4724     Create Subject Request with Optional OASIS BIAS Content:
4725     POST /bias HTTP/1.1
4726     Host: www.acme.com
4727     Content-Type: application/soap+xml; charset="utf-8"
4728     Content-Length: nnnn
4729     SOAPAction: "CreateSubject"
4730     <?xml version="1.0"?>
4731     <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
4732         <soap:Body>
4733             <tns:CreateSubjectRequestCreateSubject
4734             xmlns:tns="http://docs.oasis-open.org/bias/bias-1.0/">
4735                 <tns:GenericRequestParameters>
4736                     <tns:Application>BIAS Application</tns:Application>
4737                     <tns:ApplicationUser>BIAS User</tns:ApplicationUser>
4738                 </tns:GenericRequestParameters>
4739                 <tns:Identity>
4740                     <tns:SubjectID>123456789</tns:SubjectID>
4741                 </tns:Identity>
4742             </tns:CreateSubjectRequestCreateSubject>
4743         </soap:Body>
4744     </soap:Envelope>
```

Formatted: Font color: Auto

```
4745     Simple Create Subject Response:
4746     HTTP/1.1 200 OK
4747     Content-Type: application/soap+xml; charset="utf-8"
4748     Content-Length: nnnn
4749     <?xml version="1.0"?>
4750     <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
4751         <soap:Body>
4752             <tns:CreateSubjectResponse
4753             xmlns:tns="http://docs.oasis-open.org/bias/bias-1.0/">
4754                 <tns:ResponseStatus>
4755                     <tns:Return>0</tns:Return>
4756                 </tns:ResponseStatus>
4757                 <tns:Identity>
4758                     <tns:SubjectID>123456789</tns:SubjectID>
4759                 </tns:Identity>
4760             </tns:CreateSubjectResponse>
4761         </soap:Body>
4762     </soap:Envelope>
```

4763 **Create Subject Response with Optional OASIS BIAS Content:**
4764 HTTP/1.1 200 OK
4765 Content-Type: application/soap+xml; charset="utf-8"
4766 Content-Length: nnnn
4767 <?xml version="1.0"?>
4768 <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
4769 <soap:Body>
4770 <tns:CreateSubjectResponse
4771 xmlns:tns="http://docs.oasis-open.org/bias/bias-1.0/">
4772 <tns:ResponseStatus>
4773 <tns:Return>0</tns:Return>
4774 <tns:Message>Subject ID 123456789 successfully
4775 created.</tns:Message>
4776 </tns:ResponseStatus>
4777 <tns:Identity>
4778 <tns:SubjectID>123456789</tns:SubjectID>
4779 </tns:Identity>
4780 </tns:CreateSubjectResponse>
4781 </soap:Body>
4782 </soap:Envelope>
4783

4784 **C.2 Set Biographic Data Request/Response Example**

4785 *INCITS BIAS Specification*
4786 <interface name="SetBiographicData">
4787 <parameter name="SubjectID" type="xs:string" direction="in" />
4788 | <parameter name="IdentityModel" type="IdentityModelType"-direction="in"
4789 | />
4790 | <parameter name="EncounterID"-type="xs:string" direction="inout"
4791 | use="optional" />
4792 | <parameter name="BiographicData" type="BiographicDataType"-direction="in"
4793 | />
4794 <parameter name="Return" type="xs:unsignedLong" direction="out" />
4795 </interface>

4796 *OASIS BIAS Examples*

4797 **Set Biographic Data Request:**
4798 POST /bias HTTP/1.1
4799 Host: www.acme.com
4800 Content-Type: application/soap+xml; charset="utf-8"
4801 Content-Length: nnnn
4802 SOAPAction: "SetBiographicData"
4803 <?xml version="1.0"?>

```

4804 <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
4805   <soap:Body>
4806     <tns:SetBiographicDataRequestSetBiographicData
4807       xmlns:tns="http://docs.oasis-open.org/bias/bias-1.0/">
4808       <tns:Identity>
4809         <tns:SubjectID>123456789</tns:SubjectID>
4810         <tns:BiographicData>
4811           <tns:BiographicDataItem>
4812             <tns:Name>Last</tns:Name>
4813             <tns:Type>string</tns:Type>
4814             <tns:Value>Doe</tns:Value>
4815           </tns:BiographicDataItem>
4816         </tns:BiographicData>
4817       </tns:Identity>
4818       <tns:IdentityModel>person</tns:IdentityModel>
4819     </tns:SetBiographicDataRequestSetBiographicData>
4820   </soap:Body>
4821 </soap:Envelope>

```

4822 Set Biographic Data Response:

```

4823 HTTP/1.1 200 OK
4824 Content-Type: application/soap+xml; charset="utf-8"
4825 Content-Length: nnnn
4826 <?xml version="1.0"?>
4827 <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
4828   <soap:Body>
4829     <tns:SetBiographicDataResponse
4830       xmlns:tns="http://docs.oasis-open.org/bias/bias-1.0/">
4831       <tns:ResponseStatus>
4832         <tns:Return>0</tns:Return>
4833       </tns:ResponseStatus>
4834     </tns:SetBiographicDataResponse>
4835   </soap:Body>
4836 </soap:Envelope>
4837

```

4838 C.3 Set Biometric Data Request/Response Example

4839 INCITS BIAS Specification

```

4840 <interface name="SetBiometricData">
4841   <parameter name="SubjectID" type="xs:string" direction="in" />
4842   <parameter name="IdentityModel" type="IdentityModelType" direction="in" />
4843 </interface>

```

```

4844 |     <parameter name="EncounterID"-type="xs:string" direction="inout"
4845 | use="optional" />
4846 |     <parameter name="BIRList"-type="CBEFF_BIR_ListType" direction="in" />
4847 |     <parameter name="Return" type="xs:unsignedLong" direction="out" />
4848 | </interface>

4849 | OASIS BIAS Examples
4850 | Set Biometric Data Request:
4851 | POST /bias HTTP/1.1
4852 | Host: www.acme.com
4853 | Content-Type: application/soap+xml; charset="utf-8"
4854 | Content-Length: nnnn
4855 | SOAPAction: "SetBiometricData"
4856 | <?xml version="1.0"?>
4857 | <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
4858 |     <soap:Body>
4859 |         <tns:SetBiometricDataRequestSetBiometricData
4860 |             xmlns:tns="http://docs.oasis-open.org/bias/bias-1.0/">
4861 |             <tns:Identity>
4862 |                 <tns:SubjectID>123456789</tns:SubjectID>
4863 |                 <tns:BiometricData>
4864 |                     <tns:BIRList>
4865 |                         <tns:BIR>biometric data</tns:BIR>
4866 |                     </tns:BIRList>
4867 |                 </tns:BiometricData>
4868 |             </tns:Identity>
4869 |             <tns:IdentityModel>person</tns:IdentityModel>
4870 |         </tns:SetBiometricDataRequestSetBiometricData>
4871 |     </soap:Body>
4872 | </soap:Envelope>

4873 | Set Biometric Data Response:
4874 | HTTP/1.1 200 OK
4875 | Content-Type: application/soap+xml; charset="utf-8"
4876 | Content-Length: nnnn
4877 | <?xml version="1.0"?>
4878 | <soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope">
4879 |     <soap:Body>
4880 |         <tns:SetBiometricDataResponse
4881 |             xmlns:tns="http://docs.oasis-open.org/bias/bias-1.0/">
4882 |             <tns:ResponseStatus>
4883 |                 <tns:Return>0</tns:Return>

```

```
4884         </tns:ResponseStatus>
4885     </tns:SetBiometricDataResponse>
4886 </soap:Body>
4887 </soap:Envelope>
```

4888
4889
4890
4891
4892
4893

Annex D. Acknowledgements

The following individuals have participated in the creation of this specification and are gratefully acknowledged:

Participants:

Name	Affiliation
Mr. Young Bang	Booz Allen Hamilton
Mr. Ed. Clay	Sun
Mr. Murty Gurajada *	Raining Data Corporation
Mr. Dale Hapeman	US Department of Defense
Dr. Charles Li	Raytheon
Mr. Kevin Mangold	NIST
Mr. John Mayer-Splain	US Department of Homeland Security
Dr. Ross Michaels	NIST
Mr. Ramesh Nagappan	Sun
Mr. Ash Parikh *	Raining Data Corporation
Mr. Matthew Swayze	Daon
Mr. Guy Swope	Raytheon
Mrs. Catherine Tilton	Daon
Mr. Alessandro Triglia	OSS Nokalva
Mr. Brad Wing	NIST (formerly DHS)
Mr. Michael Wittman	Raytheon
Mr. Gregory Zektser	Booz Allen Hamilton

4894
4895
4896
4897

* Though no longer members of the BIAS TC, these individuals contributed in the early stages of the development of this standard.
In addition, the inputs from the INCITS technical committee M1 are also gratefully appreciated.

4898

Annex E. Revision History

4899

Revision	Date	Editor	Changes Made
0.01	2008-05-23	TBD	Initial draft
0.02	2008-07-23	TBD	Inserted data dictionary Added normative references Updated sec 3 & 5 + Annex B
0.03	2008-08-19	TBD	WSDL updated
0.04	2008-09-11	TBD	Updated references Added security requirements Corrected Fig. 3
0.05	2008-09-29	TBD	SSL/TLS requirement clarified Reordered material in 5.3 & App C/D Updated references 2 new use cases added (App C) Updated examples in App D
0.06	2008-11-17	TBD	Added BIAS operation name methods (new 5.3 + 4.2.27 & App B)
0.06a	2008-11-20	TBD	Updated references
0.07	2008-11-27	TBD	Revised fault structures and error handling
0.08	2009-06-22	TBD	Incorporated comments from informal public review.
0.09	2009-07-24	Tilton/Swayze	Incorporated comments from June review/meeting. Major changes included: <ul style="list-style-type: none">- Breaking Clause 3 into 2 clauses for data elements and operations- Specification of URI & IRI- Clarifications and formatting
0.10	2009-10-19	Tilton/Swayze	Expansion of conformance clause
0.11	2009-11-16	Tilton/Swayze	Miscellaneous edits and clarifications [Also published as CD01]
0.12	2010-11-04	Tilton/Swayze	Incorporation of public review comments Update WSDL
0.13	2011-01-03	Tilton/Mangold	Clarification regarding xsd:any Updated WSDL

4900