



Liberty ID-WSF 2.0 Static Conformance Requirements

Version: 1.0

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Abstract:

Defines the static conformance requirements for the Liberty Alliance ID-WSF 2.0 specifications.

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88 1. Overview

89 Static conformance requirements (SCR) describe features that are mandatory and optional for implementations
90 conforming to the Liberty Alliance Identity Web Service Framework (ID-WSF) Specifications:

- 91 • [LibertySOAPBinding \(v2.0\)](#)
- 92 • [LibertySecMech \(v2.0\)](#)
- 93 • [LibertySecMech20SAML \(v2.0\)](#)
- 94 • [LibertyDisco \(v2.0\)](#)
- 95 • [LibertyInteract \(v2.0\)](#)
- 96 • [LibertyPAOS \(v2.0\)](#)
- 97 • [LibertyAuthn \(v2.0\)](#)
- 98 • [LibertyClientProfiles \(v2.0\)](#)
- 99 • [LibertyPeopleService \(v1.0\)](#)

100 This document defines these requirements. This is a normative document with several non-normative explanatory
101 sections.

102 1.1. Framework Version

103 This specification defines framework version 2.0 (see SOAP Binding Framework header, as described in [[LibertySOAPBinding](#)]).
104

105 1.2. Definitions and Motivation

106 The Liberty specifications define a large number of features and variations. Applications often do not require all
107 the features within a specification. It is also possible that implementations may not be able to implement all the
108 features. In these cases, it may be desirable to partition the specifications into subsets of functionality. A profile is
109 a subset of the overall specifications that includes all of the functionality necessary to satisfy the requirements of a
110 particular community of users. This document identifies several Liberty conformance profiles based on subsets of
111 these specifications according to the following guidelines:

- 112 • The number of conformance profiles should be kept small.
- 113 • The profiles should correspond to the major roles within the specifications: Web Service Consumer (WSC), Web
114 Service Provider (WSP), Identity Provider (IdP), Discovery Service (DS), Interaction Service (IS), and People
115 Service (PS).
- 116 • The SCR should distinguish between software implementations and deployments. Allow deployments to option-
117 ally configure features that are mandatory in the conformance profiles.
- 118 • The SCR should place more stringent requirements on service providers as compared with service consumers to
119 promote interoperability.
- 120 • Implementations conforming to one (or more) profiles should be able to interoperate with another conforming
121 implementation of a complementary profile.

122 The resulting profiles are described below by means of tables indicating mandatory and optional features, with
123 references to the appropriate sections of the specification documents.

124 **1.3. Notation**

125 The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD
126 NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this specification are to be interpreted as described in
127 [RFC2119]: "they MUST only be used where it is actually required for interoperation or to limit behavior which has
128 potential for causing harm (e.g., limiting retransmissions)."

129 The normative sections of this document are identified with special formatting as indicated here:

130 **EXAMPLE** This is an example of the format of the normative requirements. Each requirement is identified
131 by a requirement identifier ("EXAMPLE" in this example).

132 **2. Conformance Profiles**

133 **2.1. Profile Matrix**

134 The following tables summarize the features that comprise the conformance profiles. The detailed specifications for
135 each profile follow in subsequent sections.

136 **Table 1. Abstract Profile Matrix**

Feature	WSC Common	WSP Common
Basic SOAP Binding	MUST	MUST
Basic Security Mechanisms	MUST	MUST

137 **Table 2. Concrete Profile Matrix**

Feature	SAML SP WSC	LUAD WSC	SAML SP WSP	LUAD WSP	SAML IdP	ID-WSF IdP	DS	PS	IS
WSC Common	MUST	MUST							
WSP Common			MUST	MUST			MUST	MUST	MUST
SAML SP WSC SOAP Binding	MUST								
SAML SP WSC Security Mechanisms	MUST								
LUAD		MUST		MUST			OPT	OPT	OPT
SAML DS Bootstrap	MUST				MUST				
Authentication Service		MUST				MUST			
SSO Service	OPT	OPT				MUST			
Identity Mapping Service						MUST			
Service Registration			OPT	OPT			MUST		
Service Discovery	MUST	MUST					MUST		
Service Invocation	MUST	MUST							
Group & User Management	OPT	OPT						MUST	
Invitations	OPT	OPT						OPT	
Interaction Service									MUST

138 **2.2. Web Service Consumer (WSC) Common Conformance Profile**

139 This section defines the common conformance requirements for all Web Service Consumer Profiles.

140 **2.2.1. Basic SOAP Binding**

141 Conforming WSCs MUST support the following SOAP Binding features

142 **wsc-soapbind-001** The WSC MUST conform to the requirements for sending SOAP-bound ID-* messages
143 and receiving their responses, as described in sections 4 and 5 of [[LibertySOAPBinding](#)].
144 This includes support for sending and processing all required headers, and for failing if any
145 unsupported Header is received with a `mustUnderstand` attribute set to true.

146 **wsc-soapbind-002** The WSC MUST support processing of the EndpointUpdate Header, as described in [[Liberty](#)
147 [SOAPBinding](#)]. Specifically, the WSC MUST (a) be able to retry an operation as specified
148 by a EndpointUpdate Header received in combination with an EndpointMoved Fault and (b) be
149 able to accept new credentials for use in subsequent operations as specified by a EndpointUp-
150 date Header received in combination with a normal response Body.

151 **2.2.2. Basic Security Mechanisms**

152 Conforming WSCs MUST be able to construct and send ID-WSF messages using the following Security Mechanisms:

153 **wsc-secmech-001** The WSC MUST be able to construct and send ID-WSF messages using (at a minimum)

- 154 • urn:liberty:security:2003-08:null:null
- 155 • urn:liberty:security:2005-02:null:Bearer
- 156 • urn:liberty:security:2003-08:TLS:null
- 157 • urn:liberty:security:2005-02:TLS:Bearer

158 as described in section 6 of [[LibertySecMech](#)].

159 **2.3. Web Service Provider (WSP) Common Conformance Profile**

160 This section defines the common conformance requirements for all Web Service Provider Profiles.

161 **2.3.1. Basic SOAP Binding**

162 Conforming WSPs MUST support the following SOAP Binding features

163 **wsp-soapbind-001** The WSP MUST conform to the requirements for receiving SOAP-bound ID-* messages
164 and sending their responses, as described in sections 4 and 5 of [[LibertySOAPBinding](#)].
165 This includes support for sending and processing all required headers, and for failing if any
166 unsupported Header is received with a `mustUnderstand` attribute set to true.

167 **wsp-soapbind-002** The WSP MUST process the UserInteraction Header, as described in [[LibertySOAPBinding](#)].

168 **2.3.2. Basic Security Mechanisms**

169 Conforming WSPs MUST be able to receive and process ID-WSF messages using the following Security Mechanisms

170 **wsp-secmech-001** The WSP MUST be able to receive and process ID-WSF messages using (at a minimum)

- 171 • urn:liberty:security:2003-08:null:null
- 172 • urn:liberty:security:2003-08:TLS:null

- 173 or
- 174 • urn:liberty:security:2005-02:null:Bearer
 - 175 • urn:liberty:security:2005-02:TLS:Bearer
- 176 or
- 177 • urn:liberty:security:2006-08:null:SAMLV2
 - 178 • urn:liberty:security:2006-08:TLS:SAMLV2
 - 179 • urn:liberty:security:2006-08:ClientTLS:peerSAMLV2
- 180 as described in section 6 of [[LibertySecMech](#)] and section 4 of [[LibertySecMech20SAML](#)].

181 **2.4. SAML Service Provider (SP) Web Service Consumer (WSC)** 182 **Conformance Profile**

183 This section defines the requirements for the SAML SP Web Service Consumer Profile.

184 **2.4.1. WSC Common**

185 Conforming SAML SP WSCs MUST support the Common WSC Profile

186 **2.4.2. SAML SP WSC SOAP Binding**

187 Conforming SAML SP WSCs MUST support the following additional SOAP Binding features:

188 **samlsp-wsc-soapbind-001** The SAML SP WSC MUST send the SOAP Binding Sender Header, as described in
189 [[LibertySOAPBinding](#)].

190 **samlsp-wsc-soapbind-002** SAML SP WSCs MUST support redirect based user interaction, as described in
191 section 7 of [[LibertySOAPBinding](#)].

192 **2.4.3. SAML SP WSC Security Mechanisms**

193 Conforming SAML SP WSCs MUST be able to construct and send ID-WSF messages using the following additional
194 Security Mechanisms:

195 **samlsp-wsc-secmech-001** The WSC MUST be able to construct and send ID-WSF messages using

- 196 • urn:liberty:security:2006-08:null:SAMLV2
- 197 • urn:liberty:security:2006-08:TLS:SAMLV2
- 198 • urn:liberty:security:2006-08:ClientTLS:SAMLV2

199 as described in section 6 of [[LibertySecMech](#)] and section 4 of [[LibertySecMech20SAML](#)].

200 **2.4.4. SAML DS Bootstrap**

201 Conforming SAML SP WSCs MUST support Discovery Service Bootstrap:

202 **samlsp-wsc-bootstrap-001** The SAML SP WSC MUST support extraction of the Principal's Discovery Service
203 EPR from the SAML assertion authenticating the Principal, as described in section 4 of
204 [[LibertyDisco](#)].

205 **2.4.5. SSO Service**

206 Conforming SAML SP WSCs MAY support obtaining SAML tokens from an IdP:

207 **samlsp-wsc-ssosvc-001** The SAML SP WSC MAY support invocation of an SSO Service using the SAML Token
208 Service Profile, as described in section 6.4 of [[LibertyAuthn](#)].

209 **2.4.6. Service Discovery and Service Invocation**

210 Conforming SAML SP WSCs MUST support discovery and invocation of at least one ID-WSF service:

211 **samlsp-wsc-discinvk-001** The SAML SP WSC MUST support querying and invocation of at least one ID-WSF
212 service registered in a Principal's Discovery Service (samlsp-wsc-bootstrap-001), as described
213 in [[LibertyDisco](#)].

214 **samlsp-wsc-discinvk-002** The SAML SP WSC MAY support discovery and invocation of PAOS services, as
215 described in [[LibertyPAOS](#)].

216 **2.4.7. Group & User Management and Invitations**

217 Conforming SAML SP WSCs MAY support management of groups & users and invitations in a People Service:

218 **samlsp-wsc-people-001** The SAML SP WSC MAY support management of groups & users, as described in
219 sections 3.7-3.20 of [[LibertyPeopleService](#)].

220 **samlsp-wsc-people-002** The SAML SP WSC MAY support invitations, as described in section 4 of [[LibertyPeo-
221 pleService](#)].

222 **2.5. Liberty User Agent or Device (LUAD) Web Service Consumer 223 (WSC) Conformance Profile**

224 This section defines the requirements for the LUAD Web Service Consumer Profile.

225 **2.5.1. WSC Common**

226 Conforming LUAD WSCs MUST support the Common WSC Profile

227 **2.5.2. LUAD**

228 Conforming LUAD WSCs MUST support the LUAD-WSC profile:

229 **luad-wsc-luad-001** The WSC MUST support LUAD-WSC profile, as described in section 3 of [[LibertyClientPro-
230 files](#)].

231 **2.5.3. Authentication Service**

232 Conforming LUAD WSCs MUST support authentication via an IdP:

233 **luad-wsc-authsvc-001** The LUAD WSC MUST support invocation of an authentication service, as described in
234 section 5 of [[LibertyAuthn](#)].

235 **luad-wsc-authsvc-002** The LUAD WSC MUST support the PLAIN and CRAM-MD5 authentication mecha-
236 nisms, as referenced in appendix A of [[LibertyAuthn](#)].

237 **luad-wsc-authsvc-003** The LUAD WSC MUST support the password transforms Truncation, Lowercase, Upper-
238 case, and Select, as described in appendix B of [[LibertyAuthn](#)].

239 **2.5.4. SSO Service**

240 Conforming LUAD WSCs MAY support obtaining SAML tokens from an IdP:

241 **luad-wsc-ssosvc-001** The LUAD WSC MAY support invocation of an SSO Service using the SAML Token
242 Service Profile, as described in section 6 of [[LibertyAuthn](#)].

243 **luad-wsc-ssosvc-002** The LUAD WSC MAY support invocation of an SSO Service using the Enhanced Client or
244 Proxy Profile, as described in section 6 of [[LibertyAuthn](#)].

245 **2.5.5. Service Discovery and Service Invocation**

246 Conforming LUAD WSCs MUST support discovery and invocation of at least one ID-WSF service registered in a
247 Principal's Discovery Service:

248 **luad-wsc-discinvk-001** The LUAD WSC MUST support querying the Principal's Discovery Service to obtain the
249 EPR for at least one ID-WSF service, as described in section 3.3 of [[LibertyDisco](#)].

250 **luad-wsc-discinvk-002** The LUAD WSC MUST support invocation of at least one discovered ID-WSF service.

251 **2.5.6. Group & User Management and Invitations**

252 Conforming LUAD WSCs MAY support management of groups & users and invitations in a People Service:

253 **luad-wsc-people-001** The LUAD WSC MAY support management of groups & users, as described in sections
254 3.7-3.20 of [[LibertyPeopleService](#)].

255 **luad-wsc-people-002** The LUAD WSC MAY support invitations, as described in section 4 of [[LibertyPeopleSer-](#)
256 [vice](#)].

257 **2.6. SAML Service Provider (SP) Web Service Provider (WSP)** 258 **Conformance Profile**

259 This section defines the requirements for the SAML SP Web Service Provider Profile.

260 **2.6.1. WSP Common**

261 Conforming SAML SP WSPs **MUST** support the Common WSP Profile

262 **2.6.2. Service Registration**

263 Conforming SAML SP WSPs **MAY** support registration with a Principal's Discovery Service:

264 **samlsp-wsp-registration-001** The SAML SP WSP **MAY** invoke the DS at a Principal's Discovery Service to
265 register itself, as described in [[LibertyDisco](#)]. Note that the SAML SP WSP takes on the role of
266 a WSC in making DS calls, and so is bound by all of the requirements specified in the applicable
267 WSC profile.

268 **2.7. Liberty User Agent or Device (LUAD) Web Service Provider (WSP)** 269 **Conformance Profile**

270 This section defines the requirements for the LUAD Web Service Provider Profile.

271 **2.7.1. WSP Common**

272 Conforming LUAD WSPs **MUST** support the Common WSP Profile

273 **2.7.2. LUAD**

274 Conforming LUAD WSPs **MUST** support the LUAD-WSP profile:

275 **luad-wsp-luad-001** The LUAD WSP **MUST** support the LUAD-WSP profile, as described in section 4 of
276 [[LibertyClientProfiles](#)].

277 **2.7.3. Service Registration**

278 Conforming LUAD WSPs **MAY** support registration with a Principal's Discovery Service or advertisement and
279 invocation via PAOS:

280 **luad-wsp-registration-001** The LUAD WSP **MAY** invoke a Principal's Discovery Service to register itself, as
281 described in [[LibertyDisco](#)]. Note that the LUAD WSP takes on the role of a WSC in making
282 DS calls, and so is bound by all of the requirements specified in the applicable WSC profile.

283 **luad-wsp-registration-002** The LUAD WSP **MAY** support advertisement and invocation via PAOS, as described
284 in [[LibertyPAOS](#)].

285 **2.8. SAML Identity Provider (IdP) Conformance Profile**

286 This section defines the conformance requirements for the SAML Identity Provider Profile. By supporting this profile,
287 SAML IdPs enable SAML SP WSCs.

288 **2.8.1. SAML DS Bootstrap**

289 Conforming SAML IdPs MUST support Discovery Service Bootstrap:

290 **samlidp-bootstrap-001** The SAML IdP MUST include the Principal's Discovery Service EPR in SAML asser-
291 tions, as described in section 4 of [[LibertyDisco](#)].

292 **2.9. ID-WSF Identity Provider (IdP) Conformance Profile**

293 This section defines the conformance requirements for the ID-WSF Identity Provider Profile. By supporting this
294 profile, IdPs enable LUAD WSCs.

295 **2.9.1. Authentication Service**

296 Conforming IdPs MUST support authentication requests:

297 **idwsfidp-authsvc-001** The IdP MUST respond to authentication requests, as described in section 5 of [[LibertyAu-](#)
298 [thn](#)].

299 **idwsfidp-authsvc-002** The IdP MUST support the PLAIN and CRAM-MD5 authentication mechanisms, as
300 referenced in appendix A of [[LibertyAuthn](#)].

301 **2.9.2. SSO Service**

302 Conforming IdPs MUST support sso requests:

303 **idwsfidp-ssosvc-001** The IdP MUST respond to sso requests, as described in section 6 of [[LibertyAuthn](#)].

304 **2.9.3. Identity Mapping Service**

305 Conforming IdPs MUST support identity mapping requests:

306 **idwsfidp-imsvc-001** The IdP MUST respond to identity mapping requests, as described in section 7 of [[LibertyAu-](#)
307 [thn](#)].

308 **2.10. Discovery Service (DS) Conformance Profile**

309 This section defines the conformance requirements for the Discovery Service Profile.

310 **2.10.1. WSP Common**

311 Conforming DSs MUST support the Common WSP Profile

312 **2.10.2. LUAD**

313 Conforming DSs MAY support the LUAD-DS profile:

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