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# CARML Profile of the Liberty Privacy Constraints Specification

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6 Version 1.0

7

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## 14 **Abstract:**

15 This profile profiles the use of privacy constraints within CARML. It defines roles and  
16 URIs used when privacy constraints are used to constrain CARML interactions, roles,  
17 predicates or attributes.

18

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## 109 1 Introduction

110 Privacy constraints are utilized in CARML documents, describing constraints on the use  
111 of identity data by services or applications.

112 These constraints may be contributed by:

113

114 developers – reflecting decisions and implementation choices made during design and  
115 implementation. For example, whether identity data is persisted and, if so, whether it is  
116 encrypted.

117

118 deployers – reflecting practice and choices made during service deployment. For  
119 example, the purpose for which identity is being sought or whether identity data would be  
120 propagated further to certain endpoints.

121

122 This document builds on the Liberty Privacy Constraints [PrivCon] specification by  
123 defining additional URIs needed to specify constraints for CARML elements. Developers  
124 and deployers would use WS-Policy [WS-Policy] constructs to create composite  
125 constraints based on the unitary privacy constraints given in [PrivCon].

### 126 1.1 Example

127 The following is an example of a privacy constraint used with CARML.

128

```
129 [a1] <wsp:Policy>  
130 [a2] <wsp:All>  
131 [a3] <pri:PurposeConstraint  
132 [a4] Entity="urn:lap:names:1.0:igf:pri:entity:deployer">  
133 [a5] ref="urn:mycorp:2007:marketing"/>  
134 [a6] <pri:PropagateConstraint  
135 [a7] Entity="urn:lap:names:1.0:igf:pri:entity:developer">  
136 [a8] ref="urn:lap:names:1.0:igf:pri:propagate:requestor"/>  
137 [a9] <pri:RetentionConstraint  
138 [a10] Entity="urn:lap:names:1.0:igf:pri:entity:developer">  
139 [a11] ref="urn:lap:names:1.0:igf:pri:retention:transient"  
140 [a12] <pri:LifetimeConstraint>  
141 [a13] <pri:Minutes>59</pri:Minutes>  
142 [a14] <pri:Hours>23</pri:Hours>  
143 [a15] </pri:LifetimeConstraint>  
144 [a16] </pri:RetentionConstraint>  
145 [a17] <wsp:All>  
146 [a18] </wsp:Policy>
```

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148 Lines [a1]-[a2] and [a17]-[a18] illustrate the use of WS-Policy to aggregate multiple  
 149 atomic privacy constraints into a single policy object. Such a policy object might be  
 150 published by an application or service in combination with a request for identity data.  
 151 [a3]-[a5] indicate the purpose for which data is sought. [a6]-[a8] indicate that the data  
 152 items will not be propagated outside the administrative domain within which the service  
 153 operates. [a9]-[a16] indicate that data items will not be persisted to store, and that they  
 154 will only be cached in memory for a maximum period of 23 hours and 59 minutes.

**1.2 Terminology**

156 Conventional XML namespace prefixes are used throughout the listings in this  
 157 specification to stand for their respective namespaces, whether or not a namespace  
 158 declaration is present in the example:

159

Prefix	XML Namespace	Comments
pri:	urn:liberty:names:1.0:igf:pri	Namespace defined in Privacy Constraints Specification
wsp:	<a href="http://www.w3.org/ns/ws-policy">http://www.w3.org/ns/ws-policy</a>	Web Services Policy namespace
xs:	<a href="http://www.w3.org/2001/XMLSchema">http://www.w3.org/2001/XMLSchema</a>	This namespace is defined in the W3C XML Schema specification [XML-Schema1]. In schema listings, this is the default namespace and no prefix is shown. For clarity, the prefix is generally shown in specification text when XML Schema-related constructs are mentioned.
xsi:	<a href="http://www.w3.org/2001/XMLSchema-instance">http://www.w3.org/2001/XMLSchema-instance</a>	This namespace is defined in the W3C XML Schema specification [XML-Schema1] for schema-related markup that appears in XML instances.

160

**1.3 References****1.3.1 Normative References**

- 163 **[RFC2119]** S. Bradner, *Key words for use in RFCs to Indicate Requirement*  
 164 *Levels*, IETF RFC 2119, March 1997.  
 165 <http://www.ietf.org/rfc/rfc2119.txt>
- 166
- 167 **[WS-Policy]** Web Services Policy 1.5 – Framework, October 2007.  
 168 <http://www.w3.org/TR/2004/REC-xmlschema-1-20041028/>
- 169
- 170 **[PrivCon]** Privacy Constraints Specification, June 2008

171 **1.3.2 Non-Normative References**

172 None

173 **1.4 Notation**

174 This specification contains schema conforming to W3C XML Schema and normative text  
175 to describe the syntax and semantics of XML-encoded policy statements.

176 The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",  
177 "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in  
178 this specification are to be interpreted as described in IETF RFC 2119 [RFC2119]

179 *"they MUST only be used where it is actually required for interoperation or to*  
180 *limit behavior which has potential for causing harm (e.g., limiting*  
181 *retransmissions)"*

182 These keywords are thus capitalized when used to unambiguously specify requirements  
183 over protocol and application features and behavior that affect the interoperability and  
184 security of implementations. When these words are not capitalized, they are meant in  
185 their natural-language sense.

186

187 **2 Profile**188 **2.1 Issuer Attribute**

189

URI	Meaning
urn:lap:names:1.0:igf:pri:entity:developer	Indicates that the assertion was contributed by the developer
urn:lap:names:1.0:igf:pri:entity:deployed	Indicates that the assertion was contributed by the deployer

190

191 **2.2 PurposeConstraint**

192 Multiple instances of the <priv:PurposeConstraint> element MAY be contributed by  
 193 both developers and deployers.

194 **2.3 PropagateConstraint**

195 Multiple instances of the <priv:PropagateConstraint> element MAY be contributed by  
 196 both developers and deployers.

---

197 An additional attribute EndPointerType is defined by this profile:

198 `<attribute name="EndPointerType" type="anyURI"/>`

199 Two URIs are defined for use with this attribute:

200

URI
urn:lap:names:1.0:igf:pri:propagate:service:definition
urn:lap:names:1.0:igf:pri:propagate:service:endpoint

201 Developers SHOULD use urn:lap:names:1.0:igf:pri:propagate:service:definition to  
202 indicate that they are describing an API or software component to which identity data will  
203 be propagated.

204 Deployers SHOULD use urn:lap:names:1.0:igf:pri:propagate:service:endpoint to  
205 indicate the deployed end-points or servers to which identity data will be propagated.

### 206 **2.3.1 Example**

207 In the first example, a developer indicates that identity data may be propagated to a  
208 certain module in a specific software package.

209

```
210 [a19] <pri:PropagateConstraint  
211 [a20] Entity="urn:lap:names:1.0:igf:pri:entity:developer"  
212 EndPointType="urn:lap:names:1.0:igf:pri:propagate:service:definition"  
213 [a21] ref="urn:hr-example-  
214 product:validation-module"/>
```

218 In the second example, a deployer indicates that identity data may be propagated to a  
219 specific URL.

220

```
221 [a23] <pri:PropagateConstraint  
222 [a24] Entity="urn:lap:names:1.0:igf:pri:entity:developer"  
223 EndPointType="urn:lap:names:1.0:igf:pri:propagate:service:endpoint"  
224 [a25] ref="http://www.example.com/partner_relations"/>
```

227