

Geopriv
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An Extensible Markup Language (XML) Representation for Expressing
Geographic Location Information Policy Capabilities
draft-guenther-geopriv-policy-caps-02.txt

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Abstract

This specification defines a set of Extensible Markup Language (XML) elements for expressing geographic location information policy capabilities.

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1. Introduction

Authorization policies are an important component of presence [[RFC2778](#)]. They allow the presentity to grant access to specific pieces of information to watchers. Authorization policies have been designed to be extensible. For this reason [I-D.rosenberg-simple-common-policy-caps] defines a generic Extensible Markup Language (XML) based format for representing policy capabilities. That format applies to many policy types, including location and presence. This specification extends that one by defining policy capabilities specific to geographic location information. Those policy capabilities correspond to the conditions, actions and transformations defined in [[I-D.ietf-geopriv-policy](#)].

2. Terminology

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

3. Structure of Geopriv Policy Capabilities

The structure of common policy capability documents is defined in [[I-D.rosenberg-simple-common-policy-caps](#)]. In that specification, each policy capability document has three components - a list of supported conditions, a list of supported actions, and a list of supported transformations. This specification merely extends that document with the conditions, actions and transformations defined in [[I-D.ietf-geopriv-policy](#)]. It does so by defining the following empty elements:

- civic-loc-condition
- geospatial-loc-condition
- distribution-transformation
- retention-transformation
- keep-rules-transformation
- civic-loc-transformation
- geospatial-loc-transformation

Each of these elements indicates whether the respective attribute in [[I-D.ietf-geopriv-policy](#)] is supported. All of these elements are defined within the namespace:

urn:ietf:params:xml:ns:geopriv-policy-capabilities

[4.](#) XML Schema

```
<xs:schema
  targetNamespace=
    "urn:ietf:params:xml:ns:geopriv-policy-capabilities"
  xmlns="urn:ietf:params:xml:ns:geopriv-policy-capabilities"
  xmlns:pc="urn:ietf:params:xml:ns:policy-capabilities"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified"
  attributeFormDefault="unqualified">

  <xs:import namespace=
    "urn:ietf:params:xml:ns:policy-capabilities" />
```

```

<xs:element name="civic-loc-condition"
  type="pc:emptyType" />

<xs:element name="geospatial-loc-condition"
  type="pc:emptyType"/>

<xs:element name="distribution-transformation"
  type="pc:emptyType" />

<xs:element name="retention-tranformation"
  type="pc:emptyType" />

<xs:element name="keep-rules-transformation"
  type="pc:emptyType" />

<xs:element name="civic-loc-transformation"
  type="pc:emptyType"/>

<xs:element name="geospatial-loc-transformation">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="lat-resolution"
        type="pc:emptyType" minOccurs="0" />
      <xs:element name="lon-resolution"
        type="pc:emptyType" minOccurs="0" />
      <xs:element name="alt-resolution"
        type="pc:emptyType" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
</xs:element>

</xs:schema>

```

[5.](#) Example Document

The following document indicates that the identity and validity conditions are supported, each of which is defined in [I-D.ietf-geopriv-common-policy], while no support of sphere conditions is indicated. Furthermore, the example indicates that the geolocation-specific condition named civic-loc-condition is supported. With respect to transformations, the example gives the indication that the

geolocation-specific transformations named keep-rules-transformation is supported. This is also the case for geospatial-loc-transformations, namely, for latitude and longitude values, but not for altitude values:

```
<?xml version="1.0" encoding="UTF-8"?>
<policy-capabilities
  xmlns="urn:ietf:params:xml:ns:policy-capabilities"
  xmlns:GPC="urn:ietf:params:xml:ns:geopriv-policy-capabilities"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

  <conditions>
    <identity/>
    <validity/>
    <GPC:civic-loc-condition/>
  </conditions>

  <actions>
  </actions>

  <transformations>
    <GPC:keep-rules-transformation/>
    <GPC:geospatial-loc-transformation>
      <GPC:lat-resolution/>
      <GPC:lon-resolution/>
    </GPC:geospatial-loc-transformation>
  </transformations>

</policy-capabilities>
```


This specification does not introduce any new security considerations beyond those discussed in [[I-D.rosenberg-simple-common-policy-caps](#)].

[7.](#) IANA Considerations

This section registers a new XML namespace and a new XML schema with IANA.

[7.1](#) Namespace Registration

URI: urn:ietf:params:xml:ns:geopriv-policy-capabilities
Registrant Contact: IETF Geopriv Working Group, Christian Guenther
(christian.guenther@siemens.com), Hannes Tschofenig
(hannes.tschofenig@siemens.com).

XML:

```
BEGIN
<?xml version="1.0"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML Basic 1.0//EN"
  "http://www.w3.org/TR/xhtml-basic/xhtml-basic10.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <meta http-equiv="content-type"
    content="text/html; charset=iso-8859-1"/>
  <title>Geopriv Policy Capabilities</title>
</head>
<body>
  <h1>Namespace for Geopriv Policy Capabilities</h1>
  <h2>urn:ietf:params:xml:ns:geopriv-policy-capabilities</h2>
  <p>See <a href="[[[URL of published RFC]]]">RFCXXXX</a>.</p>
</body>
</html>
END
```

[7.2](#) Geopriv Policy Capabilities Schema Registration

URI: Please assign.

Registrant Contact: IETF Geopriv Working Group, Christian Guenther
(christian.guenther@siemens.com), Hannes Tschofenig
(hannes.tschofenig@siemens.com).

XML: The XML schema to be registered is contained in section
[Section 4](#). Its first line is

```
<xs:schema
```

and its last line is

```
</xs:schema>
```

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8. Acknowledgments

The authors would like to thank Jonathan Rosenberg whose Presence Policy Capabilities document [[I-D.rosenberg-simple-pres-policy-caps](#)] served as template for this document.

[9.](#) References

[9.1](#) Normative References

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", March 1997.
- [RFC2778] Day, M., Rosenberg, J., and H. Sugano, "A Model for Presence and Instant Messaging", February 2000.
- [RFC3688] Mealling, M., "The IETF XML Registry", January 2004.

[9.2](#) Informative References

- [I-D.ietf-geopriv-common-policy]
Schulzrinne, H., Morris, J., Tschofenig, H., Polk, J., and J. Rosenberg, "A Document Format for Expressing Privacy Preferences", [draft-ietf-geopriv-common-policy-04](#) (work in progress), February 2005, <reference.I-D.ietf-geopriv-common-policy.xml>.
- [I-D.ietf-geopriv-policy]
Schulzrinne, H., Morris, J., Tschofenig, H., Cuellar, J., and J. Polk, "Geopriv Policy", [draft-ietf-geopriv-policy-05](#) (work in progress), November 2004, <reference.I-D.ietf-geopriv-policy-05.txt>.
- [I-D.rosenberg-simple-common-policy-caps]
Rosenberg, J., "An Extensible Markup Language (XML) Representation for Expressing Policy Capabilities", [draft-rosenberg-simple-common-policy-caps-02](#) (work in progress), February 2005, <reference.I-D.rosenberg-simple-

common-policy-caps.txt>.

[I-D.rosenberg-simple-pres-policy-caps]

Rosenberg, J., "An Extensible Markup Language (XML)
Representation for Expressing Presence Policy
Capabilities", [draft-rosenberg-simple-pres-policy-caps-02](#)
(work in progress), February 2005, <reference.I-
D.rosenberg-simple-pres-policy-caps.txt>.

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