

SIMPLE
Internet-Draft
Expires: January 11, 2006

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July 10, 2005

An Extensible Markup Language (XML) Representation for Expressing
Presence Policy Capabilities
draft-ietf-simple-pres-policy-caps-00

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Abstract

An important component of presence services is policy. Policy systems allow the presentity to grant access to specific pieces of information to specific watchers. To allow for interoperability between clients which set such policies, and servers which execute them, it is necessary for clients to be able to determine the capabilities of the server to which it is connected. This specification defines a set of Extensible Markup Language (XML) elements for expressing presence policy capabilities.

Internet-Draft

Presence Policy Capabilities

July 2005

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[1.](#) Terminology

In this document, the key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" are to be interpreted as described in [RFC 2119](#) [3] and indicate requirement levels for compliant implementations.

[2.](#) Introduction

An important component of presence [6] is policy. Policy systems allow the presentity to grant access to specific pieces of information to specific watchers. These policy systems can be extremely simple or extremely complex. For this reason [1] defines a generic Extensible Markup Language (XML) based format for representing policy capabilities. That format applies to many services, including location and presence. This specification extends that one by defining policy capabilities specific to presence. Those policy capabilities correspond to the conditions, actions and transformations defined in [2].

[3.](#) Structure of Presence Policy Capabilities

[1] defines the structure of common policy capability documents. 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 [2]. It does so by defining the elements <provide-services>, <provide-devices> and <provide-person>, each of which is a presence transformation that the server can support. Furthermore, each of those includes elements that define the specific ways of identifying services, devices and persons, respectively.

The document also defines capabilities for transformations that provide individual presence attributes, including <provide-activities>, <provide-class>, <provide-device-id>, <provide-mood>,

<provide-place-is>, <provide-place-type>, <provide-privacy>, <provide-relationship>, <provide-status-icon>, <provide-sphere>, <provide-time-offset>, <provide-user-input>, <provide-note>, <component-id>, <provide-unknown-attribute>, and <provide-all-attributes>, each of which is a boolean indicating whether that transformation is supported.

Finally, this document defines the <sub-handling> element, which is a boolean indicating whether or not the corresponding action is supported.

OPEN ISSUE: should we define capabilities for specific values of sub-handling and component-id?

All of these elements are defined within the namespace:

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

[4.](#) XML Schema

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema
  targetNamespace="urn:ietf:params:xml:ns:presence-policy-capabilities"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:cc="urn:ietf:params:xml:ns:policy-capabilities"
  xmlns:pc="urn:ietf:params:xml:ns:presence-policy-capabilities"
  elementFormDefault="qualified" attributeFormDefault="unqualified">
  <xs:import namespace="urn:ietf:params:xml:ns:policy-capabilities"
    schemaLocation="sbase.xsd"/>
  <xs:element name="provide-services">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="service-uri" type="cc:emptyType" minOccurs="0"/>
        <xs:element name="service-uri-scheme" type="cc:emptyType" minOccurs="0"/>
        <xs:element name="instance-id" type="cc:emptyType" minOccurs="0"/>
        <xs:element name="class" type="cc:emptyType" minOccurs="0"/>
        <xs:any namespace="##other" minOccurs="0"/>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

```

    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="provide-devices">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="device-id" type="cc:emptyType" minOccurs="0"/>
      <xs:element name="instance-id" type="cc:emptyType" minOccurs="0"/>
      <xs:element name="class" type="cc:emptyType" minOccurs="0"/>
      <xs:any namespace="##other" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="provide-person">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="instance-id" type="cc:emptyType" minOccurs="0"/>
      <xs:element name="class" type="cc:emptyType" minOccurs="0"/>
      <xs:any namespace="##other" minOccurs="0"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

```

```

    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="provide-activities" type="cc:emptyType"/>
<xs:element name="provide-class" type="cc:emptyType"/>
<xs:element name="provide-device-id" type="cc:emptyType"/>
<xs:element name="provide-mood" type="cc:emptyType"/>
<xs:element name="provide-place-is" type="cc:emptyType"/>
<xs:element name="provide-place-type" type="cc:emptyType"/>
<xs:element name="provide-privacy" type="cc:emptyType"/>
<xs:element name="provide-relationship" type="cc:emptyType"/>
<xs:element name="provide-status-icon" type="cc:emptyType"/>
<xs:element name="provide-sphere" type="cc:emptyType"/>
<xs:element name="provide-time-offset" type="cc:emptyType"/>
<xs:element name="provide-user-input" type="cc:emptyType"/>
<xs:element name="provide-note" type="cc:emptyType"/>
<xs:element name="component-id" type="cc:emptyType"/>
<xs:element name="sub-handling" type="cc:emptyType"/>
<xs:element name="provide-unknown-attribute" type="cc:emptyType"/>
<xs:element name="provide-all-attributes" type="cc:emptyType"/>
</xs:schema>

```

[5.](#) Example Document

The following document is an example.

```
<?xml version="1.0" encoding="UTF-8"?>
<cc:policy-capabilities
  xmlns="urn:ietf:params:xml:ns:presence-policy-capabilities"
  xmlns:pc="urn:ietf:params:xml:ns:presence-policy-capabilities"
  xmlns:cc="urn:ietf:params:xml:ns:policy-capabilities"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:presence-policy-capabilities
  spres.xsd">
  <cc:conditions>
    <cc:identity/>
    <cc:sphere/>
    <cc:validity/>
    <cc:sphere/>
    <vpp:temp/>
  </cc:conditions>
```

```
<cc:actions>
  <sub-handling/>
</cc:actions>
<cc:transformations>
  <vpp:min-security/>
  <vpp:max-security/>
  <component-id/>
  <provide-person>
    <class/>
  </provide-person>
</cc:transformations>
</cc:policy-capabilities>
```

NOTE: this example needs work - doesn't validate against the schema.

[6.](#) Security Considerations

This specification does not introduce any new security considerations beyond those discussed in [\[1\]](#).

[7.](#) IANA Considerations

There are several IANA considerations associated with this specification.

[7.1](#) URN Sub-Namespace Registrations

This section registers a new XML namespace, as per the guidelines in [\[4\]](#)

URI: The URI for this namespace is
urn:ietf:params:xml:ns:presence-policy-capabilities

Registrant Contact: IETF, SIMPLE working group, (simple@ietf.org),
Jonathan Rosenberg (jdrosen@jdrosen.net).

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>Supported Presence Permissions Namespace</title>
</head>
<body>
    <h1>Namespace for Supported Permissions</h1>
    <h2>urn:ietf:params:xml:ns:presence-policy-capabilities</h2>
    <p>See <a href="[[[URL of published RFC]]]">RFCXXXX</a>.</p>
</body>
</html>
END

```

[7.2](#) XML Schema Registration

This section registers an XML schema as per the procedures in [\[4\]](#).

URI: urn:ietf:params:xml:ns:presence-policy-capabilities.

Registrant Contact: IETF, SIMPLE working group, (simple@ietf.org),
Jonathan Rosenberg (jdrosen@jdrosen.net).

The XML for this schema can be found as the sole content of
[Section 4](#).

[8](#). References

[8.1](#) Normative References

- [1] Rosenberg, J., "An Extensible Markup Language (XML)
Representation for Expressing Policy Capabilities",
[draft-rosenberg-simple-common-policy-caps-02](#) (work in progress),

- [2] Rosenberg, J., "Presence Authorization Rules", [draft-ietf-simple-presence-rules-02](#) (work in progress), February 2005.
- [3] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.
- [4] Mealling, M., "The IETF XML Registry", [BCP 81](#), [RFC 3688](#), January 2004.

[8.2](#) Informative References

- [5] Rosenberg, J., "The Extensible Markup Language (XML) Configuration Access Protocol (XCAP)", [draft-ietf-simple-xcap-07](#) (work in progress), June 2005.
- [6] Day, M., Rosenberg, J., and H. Sugano, "A Model for Presence and Instant Messaging", [RFC 2778](#), February 2000.

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Acknowledgment

Funding for the RFC Editor function is currently provided by the

Internet Society.

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Expires January 11, 2006

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