Transporting Presence Information Data Format (PIDF) over the Extensible
              Messaging and Presence Protocol (XMPP)
                    draft-saintandre-xmpp-pidf-03

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Abstract

   This document defines how to send information encoded in the Presence
   Information Data Format (PIDF) over the Extensible Messaging and
   Presence Protocol (XMPP).

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1. Introduction

1.1 Overview

   The Presence Information Data Format ([PIDF]) defines a common data
   format for presence protocols that conform to the Common Profile for
   Presence ([CPP]), enabling presence information to be transferred
   across CPP-compliant protocol boundaries without modification, with
   attendant benefits for end-to-end encryption and performance.
   Because the syntax for PIDF is Extensible Markup Language [XML], it
   should be straightforward to send PIDF data over the Extensible
   Messaging and Presence Protocol (XMPP) [XMPP-CORE], since XMPP is
   simply an XML streaming protocol. This memo defines a mechanism for
   encapsulating PIDF data within an "extended namespace" contained in
   an XMPP presence stanza.

1.2 Terminology

   This document inherits terminology defined in [PIDF], [XMPP-CORE],
   and [XMPP-IM].

   The capitalized 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 RFC
   2119 [TERMS].

2. Protocol

   The PIDF format is defined in [PIDF]. Briefly, the XML namespace
   name is 'urn:ietf:params:xml:ns:pidf', the root element is
   , the element must possess an 'entity'
   attribute that specifies the pres: URI (see [CPP]) that identifies
   the presentity (see [RFC2778]) to which the PIDF data relates, and
   the element may contain any number of child
   elements specifying information about the entity.

   The recommended method for encapsulating PIDF data within an XMPP
   presence stanza is by including the PIDF element as a
   child of the XMPP stanza. Although it may appear that
   this is potentially confusing, the inclusion of the
   'urn:ietf:params:xml:ns:pidf' namespace ensures that PIDF data is
   kept separate from XMPP presence data (in accordance with [XML-
   NAMES]). The following is a simple example of encapsulating PIDF
   data within an "extended namespace" in XMPP:

A basic example of PIDF over XMPP:

```
<presence from='romeo@example.net/orchard' xml:lang='en'>
  <show>dnd</show>
  <status>Wooing Juliet</status>
  <presence xmlns='urn:ietf:params:xml:ns:pidf'
            entity='pres:romeo@example.net'>
    <tuple id='orchard'>
      <status>
        <basic>open</basic>
      </status>
    </tuple>
  </presence>
</presence>
```

Because base PIDF data does not encapsulate any additional
information over and above XMPP presence stanzas, there is little
point to including it in native XMPP systems when it is not encrypted
(obviously, encrypting PIDF data can help to ensure end-to-end
encryption of presence information, as described in [XMPP-E2E],
especially across boundaries between CPP-compliant systems such as
those described in [XMPP-SIMPLE]). The power of PIDF in the context
of XMPP derives from PIDF extensions, such as those for rich presence
(see [RPID]) and geographical location (see [GEOLOC]). Any such
extension to PIDF can be included in an XMPP presence stanza, since,
according to the definition of "extended namespaces" in [XMPP-IM],
the format of such extended data is defined by the extension rather
than by the base XMPP specification itself. Thus the ability to
include PIDF data and PIDF data extensions in XMPP enables XMPP-aware
applications to include any PIDF-compatible data that is currently
defined or that may be defined in the future. Naturally, there is no
guarantee that all XMPP entities will be able to understand such PIDF
data, and entities that do not understand the data MUST ignore it (in
accordance with [XMPP-CORE]). However, this memo at least defines a
mechanism for including PIDF data, which XMPP applications are
encouraged to implement if they desire to make use of PIDF data
extensions for rich presence, geographical location, and other kinds
of presence-related information.

3. Security Considerations

This memo introduces no new security considerations above and beyond
those provided for PIDF in [PIDF] and for XMPP in [XMPP-CORE].

4. References

4.1 Normative References

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[PIDF]   Sugano, H., Fujimoto, S., Klyne, G., Bateman, A., Carr,
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[XMPP-E2E]
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[XMPP-IM]   Saint-Andre, P., "Extensible Messaging and Presence
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4.2 Informative References

[GEOLOC]   Peterson, J., "A Presence-based GEOPRIV Location Object
             Format", RFC 4119, December 2005.

[RFC2778]   Day, M., Rosenberg, J., and H. Sugano, "A Model for
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