

Network Working Group
Internet-Draft
Expires: June 8, 2006

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December 5, 2005

**Sieve Notifications via the Extensible Messaging and Presence Protocol
(XMPP)
draft-saintandre-sieve-notify-xmpp-00**

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Abstract

This document describes a profile of the Sieve extension for instant notifications to be used with the Extensible Messaging and Presence Protocol (XMPP).

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1. Introduction

1.1 Overview

[SIEVE-NOTIFY] defines a [\[SIEVE\]](#) extension for instant notifications to be generated when a new message has arrived in an email inbox. In particular, [\[SIEVE-NOTIFY\]](#) defines the "notify" action but does not specify which technology or technologies to use for such notifications; instead, it leaves the definition of specific notification methods up to "profiles" of [\[SIEVE-NOTIFY\]](#). This document defines one such profile, for the Extensible Messaging and Presence Protocol (XMPP) as defined in [\[XMPP\]](#).

1.2 Terminology

This document inherits terminology from [\[SIEVE\]](#), [\[SIEVE-NOTIFY\]](#), and [\[XMPP\]](#).

The capitalized key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC 2119](#) [\[TERMS\]](#).

2. Definition

In order to send Sieve notifications to an XMPP entity, the format of the notify action shall be as follows:

- o The ":method" tag MUST be specified and its value MUST be a URI that conforms to the xmpp URI scheme (as specified in [\[XMPP-URI\]](#)) and that identifies an XMPP account associated with the email inbox.
- o The ":id" tag MAY be specified.
- o The ":priority" tag MAY be specified.
- o The ":message" tag MAY be specified.

The notify action SHOULD be mapped to XMPP elements and attributes as follows:

- o The notification MUST be an XMPP <message/> stanza.
- o The value of the ":id" tag SHOULD NOT be translated into XMPP syntax.
- o The value of the ":priority" tag MAY be translated into XMPP syntax; if it is so translated, it SHOULD be encapsulated as the value of an [\[XMPP-SHIM\]](#) header named "Priority" and its value SHOULD be consistent with [\[RFC1327\]](#) (namely, "normal", "non-urgent", or "urgent").

- o The value of the ":message" tag MUST be translated into the XML character data of the XMPP <message/> stanza's <body/> child element.
- o The value of the XMPP <message/> stanza's 'type' attribute SHOULD be "normal" (or not included since "normal" is the default value) but MAY be "headline".
- o The value of the XMPP <message/> stanza's 'to' attribute MUST be the XMPP address that is extracted from the ":method" tag in accordance with the processing rules specified in [[XMPP-URI](#)].
- o The value of the XMPP <message/> stanza's 'from' attribute MUST be the XMPP address of the notification service.
- o The XMPP <message/> stanza MAY include a <subject/> child element whose value is either the ":subject" tag or, absent that, some configurable text indicating that the message is a Sieve instant notification.

3. Example

Consider the following Sieve notify action:

```
notify :method "xmpp:romeo@example.com"
      :id "some-id"
      :priority "high"
      :message "<juliet@example.org> Wherefore art thou?";
```

The resulting XMPP <message/> stanza might be as follows:

```
<message from='notify.example.com'
  to='romeo@example.com'
  xml:lang='en'>
  <subject>A Sieve instant notification!</subject>
  <body>&lt;juliet@example.org&gt; Wherefore art thou?</body>
  <headers xmlns='http://jabber.org/protocol/shim'>
    <header name='Priority'>urgent</header>
  </headers>
</message>
```

4. Internationalization Considerations

Although an XMPP address may contain nearly any [[UNICODE](#)] character, the value of the ":method" tag MUST be a Uniform Resource Identifier (see [[URI](#)] rather than an Internationalized Resource Identifier (see [[IRI](#)]). The rules specified in [[XMPP-URI](#)] MUST be followed when generating XMPP URIs.

5. Security Considerations

Detailed security considerations for the relevant protocols profiled in this document are given in [[SIEVE](#)], [[SIEVE-NOTIFY](#)], and [[XMPP](#)]; this document introduces no new security concerns above and beyond those described in the foregoing specifications.

6. References

6.1 Normative References

- [SIEVE] Showalter, T. and P. Guenther, "Sieve: An Email Filtering Language", [draft-ietf-sieve-3028bis-05](#) (work in progress), November 2005.
- [SIEVE-NOTIFY] Melnikov, A., "Sieve -- An extension for providing instant notifications", [draft-ietf-sieve-notify-01](#) (work in progress), October 2005.
- [TERMS] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.
- [XMPP] Saint-Andre, P., "Extensible Messaging and Presence Protocol (XMPP): Core", [RFC 3920](#), October 2004.
- [XMPP-URI] Saint-Andre, P., "Internationalized Resource Identifiers (IRIs) and Uniform Resource Identifiers (URIs) for the Extensible Messaging and Presence Protocol (XMPP)", [draft-saintandre-xmpp-iri-03](#) (work in progress), December 2005.

6.2 Informative References

- [IRI] Duerst, M. and M. Suignard, "Internationalized Resource Identifiers (IRIs)", [RFC 3987](#), January 2005.
- [RFC1327] Hardcastle-Kille, S., "Mapping between X.400(1988) / ISO 10021 and [RFC 822](#)", [RFC 1327](#), May 1992.
- [UNICODE] The Unicode Consortium, "The Unicode Standard, Version 3.2.0", 2000.
- The Unicode Standard, Version 3.2.0 is defined by The Unicode Standard, Version 3.0 (Reading, MA, Addison-Wesley, 2000. ISBN 0-201-61633-5), as amended by the Unicode Standard Annex #27: Unicode 3.1

(<http://www.unicode.org/reports/tr27/>) and by the Unicode Standard Annex #28: Unicode 3.2 (<http://www.unicode.org/reports/tr28/>).

[URI] Berners-Lee, T., Fielding, R., and L. Masinter, "Uniform Resource Identifier (URI): Generic Syntax", STD 66, [RFC 3986](#), January 2005.

[UTF-8] Yergeau, F., "UTF-8, a transformation format of ISO 10646", STD 63, [RFC 3629](#), November 2003.

[XMPP-SHIM] Saint-Andre, P. and J. Hildebrand, "Stanza Headers and Internet Metadata (SHIM)", JSF JEP 0131, August 2005.

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Acknowledgment

Funding for the RFC Editor function is currently provided by the Internet Society.

