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# Sieve Notifications via the Extensible Messaging and Presence Protocol (XMPP)
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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:

- 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.
- The ":id" tag MAY be specified.
- The ":priority" tag MAY be specified.
- The ":message" tag MAY be specified.

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

- The notification MUST be an XMPP <message/> stanza.
- The value of the ":id" tag SHOULD NOT be translated into XMPP syntax.
- 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").

- The value of the ":message" tag MUST be translated into the XML character data of the XMPP <message/> stanza's <body/> child element.
- 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".
- 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].
- The value of the XMPP <message/> stanza's 'from' attribute MUST be the XMPP address of the notification service.
- 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.

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[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.

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[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.

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