The Jabber-ID Header Field
draft-saintandre-jabberid-08

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Abstract

This document defines a header field that enables the author of an email or netnews message to include a Jabber Identifier in the message header block for the purpose of associating the author with a particular Extensible Messaging and Presence Protocol (XMPP) address.
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1. Introduction

The Extensible Messaging and Presence Protocol (XMPP), documented in [XMPP-CORE], is a streaming XML technology that enables any two entities on a network to exchange well-defined but extensible XML elements (called "XML stanzas") in close to real time. Given XMPP's heritage in the Jabber open-source community, one of the primary uses for XMPP is instant messaging and presence as documented in [XMPP-IM], and XMPP addresses are still referred to as Jabber Identifiers or Jabber IDs.

Because almost all human users of Jabber/XMPP instant messaging and presence systems also use email systems (see [MESSAGE]) and because many such users also use netnews systems (see [NETNEWS]), it can be helpful for such users to specify their Jabber Identifiers in the messages they author. The Jabber-ID header field provides a standard location for that information. Members of the Jabber instant messaging and presence community have been experimenting with this usage for several years. As a result, this document provides informational documentation regarding the syntax and implementation of the Jabber-ID header field, including the information necessary to register the Jabber-ID field in the Provisional Message Header Field Registry maintained by the IANA.

Naturally it may be beneficial to define a more general header field (or fields) that can be used by non-XMPP instant messaging and presence systems. In all likelihood the result would be one header field encapsulating a URI that conforms to the "im:" scheme (see [CPIM]) and a second header field encapsulating a URI that conforms to the "pres:" scheme (see [CPP]). Experience gained with the Jabber-ID header field within the Jabber instant messaging and presence community should provide helpful input to the process of defining those more general header fields.

2. Syntax

The syntax of the Jabber-ID header field is defined below using Augmented Backus-Naur Form (as specified by [ABNF]), where the "pathxmpp" rule is defined in [XMPP-URI] and the remaining rules are defined in [MESSAGE]:

"Jabber-ID:" SP *WSP pathxmpp *WSP CRLF

Note: Although a native XMPP address may contain virtually any [UNICODE] character, the header of an email or netnews message may contain only printable [US-ASCII] characters (see Section 2 of [MESSAGE]). Therefore, any characters outside the US-ASCII range in
an XMPP address must be converted to US-ASCII before inclusion in a Jabber-ID header field, in accordance with the rules specified in [XMPP-URI]. In addition, characters allowed in XMPP node identifiers and XMPP resource identifiers but disallowed by the relevant URI rules must be percent-encoded in accordance with the rules specified in [URI]; for details, see [XMPP-URI].

3. Implementation

3.1. Inclusion

The Jabber-ID header field is associated with the author of the message; see [MESSAGE]. If the "From:" header field of an email message contains more than one mailbox, the Jabber-ID header field should not be added to the message. There should be no more than one instance of the Jabber-ID header field.

3.2. Generation

For a user whose XMPP address is "juliet@example.com", the corresponding Jabber-ID header field would be:

Jabber-ID: juliet@example.com

As noted, non-US-ASCII characters in XMPP addresses must be converted into US-ASCII before inclusion in a Jabber-ID header field. Consider the following XMPP address:

jiři@čechy.example

Note: The string "&#x159;" stands for the Unicode character LATIN SMALL LETTER R WITH CARON and the string "&#x10D;" stands for the Unicode character LATIN SMALL LETTER C WITH CARON, following the "XML Notation" used in [IRI] to represent characters that cannot be rendered in ASCII-only documents (note also that these characters are represented in their stringprep canonical form; see [STRINGPREP]). For those who do not read Czech, this example could be Anglicized as "george@czech-lands.example".

Following the rules in [XMPP-URI] and the Jabber-ID header field syntax, the resulting header field would be:

Jabber-ID: ji%C5%99i@%C4%8Dechy.example
3.3. Processing

Upon receiving an email or netnews message containing a Jabber-ID header field, a user agent that supports the field should process the field by converting any escaped characters to characters outside the US-ASCII range in accordance with the rules specified in [XMPP-URI], thus yielding a Jabber Identifier that can be used for native communication on an XMPP network.

3.4. Disposition

A user agent that has processed a Jabber-ID header field may provide appropriate interface elements if it has independent information linking the author of the email or netnews message with the specified Jabber Identifier (e.g., via a user-controlled address book or automated directory lookup). Such interface elements might include an indicator of "presence" (i.e., that the author is online and available for communication via XMPP) if the user is subscribed to the presence of the author, and an element that enables the user to initiate a text chat with the author.

4. IANA Considerations

In accordance with [REG], the IANA registers the "Jabber-ID" header field in the Provisional Message Header Field Registry. The registration template is as follows:

Header field name: Jabber-ID
Applicable protocol: mail, netnews
Status: provisional
Author/Change controller: Peter Saint-Andre
<mailto:stpeter@jabber.org>
Specification document(s): draft-saintandre-jabberid-08
Related information: For details regarding the native usage and format of Jabber Identifiers, see Extensible Messaging and Presence Protocol (RFC 3920).

[Note to IANA and RFC Editor: If appropriate, replace I-D name with RFC XXXX, where "XXXX" is the number of the RFC that results from this specification, if any]

5. Security Considerations

Message headers are an existing standard and are designed to easily accommodate new types. Although the Jabber-ID header field may be forged, this problem is inherent in Internet email and netnews;
however, because a forged Jabber-ID header field may break automated processing, applications should not depend on the Jabber-ID header field to indicate the authenticity of an email or netnews message, or the identity of its author or sender. Including the Jabber-ID header field among the signer header fields in DomainKeys Identified Mail (DKIM) can help to mitigate against forging of the header (see [DKIMSIG]).

Advertising XMPP addresses in email or netnews headers may make it easier for malicious users to harvest XMPP addresses and therefore to send unsolicited bulk communications to the users or applications represented by those addresses. Care should be taken in balancing the benefits of open information exchange against the potential costs of unwanted communication. An email or netnews user agent that is capable of including the Jabber-ID header field in outgoing email or netnews messages should provide an option for its user to disable inclusion of the Jabber-ID header field generally, on a per-recipient basis, and on a per-message basis.

The security considerations discussed in [IRI], [URI], [XMPP-CORE], [XMPP-IM], and [XMPP-URI] may also apply to the Jabber-ID message header.

6. References

6.1. Normative References


6.2. Informative References


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