IMAP4 Keyword Registry
draft-melnikov-imap-keywords-10

Abstract

   The aim of this document is to establishe a new IANA registry for
   IMAP keywords and to define a procedure for keyword registration, in
   order to improve interoperability between different IMAP clients.

Note

   A revised version of this draft document will be submitted to the RFC
   editor as a Proposed Standard for the Internet Community. Discussion
   and suggestions for improvement are requested, and should be sent to
   morg@ietf.org.

Status of this Memo

Copyright Notice

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1. Conventions used in this document

The 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 [Kwds].

2. Introduction

IMAP Keywords [RFC3501] are boolean named flags that can be used by
clients to annotate messages in an IMAP mailbox. Although IMAP
keywords is an optional feature of IMAP, the majority of IMAP servers
can store arbitrary keywords. Many mainstream IMAP clients use a
limited set of specific keywords, and some can manage (create, edit,
display) arbitrary IMAP keywords.

Over years some IMAP keywords have become de-facto standard, with
some specific semantics associated with them. In some cases
different client implementors decided to define and use keywords with
different names, but the same semantics. Some server implementors
decided to map such keywords automatically in order to improve cross
client interoperability.

In other cases, the same keywords have been used with different
semantics, thus causing interoperability problems.

This document attempts to prevent further incompatible uses of IMAP
keywords by establishing an IMAP Keyword registry, and allocating a
special prefix for standardized keywords.

3. IANA Considerations

IANA is requested to establish a new registry for IMAP keywords.

Registration of an IMAP keyword is requested by filling in the
following template and following the instructions on the IANA pages
for the registry for submitting it to IANA:

Subject: Registration of IMAP keyword X

IMAP keyword name:

Purpose (description):

Private or Shared on a server: (One of PRIVATE, SHARED or BOTH.
            PRIVATE means that each different user has a distinct
            copy of the keyword. SHARED means that all different
            users see the same value of the keyword. BOTH means that
            an IMAP server can have the keyword as either private or
            shared.)

Is it an advisory keyword or may it cause an automatic action:

When/by whom the keyword is set/cleared:

Related keywords: (for example "mutually exclusive with keywords Y
            and Z")

Related IMAP capabilities:

Security considerations:

Published specification (recommended):

Person & email address to contact for further information:

Intended usage: (One of COMMON, LIMITED USE or DEPRECATED (i.e. not
            recommended for use))

Owner/Change controller: (MUST be "IESG" for any "common use"
            keyword registration specified in an IETF Review
            document. See definition of "common use" below in this
            section. When the Owner/Change controller is not a
            Standardization Organization, the registration request
            MUST make it clear if the registration is controlled by a
            company, or the individual performing the registration.)

Note: (Any other information that the author deems interesting
               may be added here, for example if the keyword(s) is
               supported by existing clients.)

Registration of an IMAP keyword requires Expert Review [RFC5226].
Registration of any IMAP keyword is initiated by posting a
registration request to the Message Organization WG mailing list
<morg@ietf.org> (or its replacement as chosen by the responsible
Application Area Director) and CCing IANA (<iana@iana.org>). After
allowing for at least 2 weeks for community input on the designated
mailing list, the expert will determine the appropriateness of the
registration request and either approve or disapprove the request
with notice to the requestor, the mailing list, and IANA. Any
refusal must come with a clear explanation.

The IESG appoints one or more Expert Reviewer for the IMAP Keyword
registry established by this document.

Expert Reviewer should strive for timely reviews. Expert Reviewer
should take no longer than 6 weeks to make and announce the decision,
or notify the mailing list that more time is required.

Decisions (or lack of) made by an Expert Reviewer can be first
appealed to Application Area Directors and, if the appellant is not
satisfied with the response, to the full IESG.

There are two types of IMAP keywords in the "IMAP Keywords" registry:
intended for common use and vendor/organization specific (also known
as "limited use"). An IMAP keyword is said to be for "common use" if
it is reasonably expected to be implemented in at least 2 independent
client implementations. The two types of IMAP Keywords have
different levels of requirements for registration (see below).

3.1. Review guidelines for the designated Expert Reviewer

Expert Reviewers should focus on the following requirements.

Registration of a vendor/organization specific ("limited use") IMAP
keyword is easier. The Expert Reviewer only needs to check that the
requested name doesn't conflict with an already registered name, and
that the name is not too generic, misleading, etc. The Expert
Reviewer MAY request the IMAP Keyword name change before approving
the registration. The Expert Reviewer SHOULD refuse a registration
if there is an already registered IMAP Keyword which serve the same
purpose, but has a different name.

When registering an IMAP Keyword for "common use", the Expert

Reviewer performs the checks described for vendor/organization
specific IMAP Keywords, plus additional checks as detailed below.

Keywords intended for common use SHOULD start with the "$" prefix.
(Note that this is a SHOULD because some of the commonly used IMAP
keywords in widespread use don't follow this convention.)

IMAP keywords intended for common use SHOULD be standardized in IETF
Review [RFC5226] documents. (Note that IETF Review documents still
require Expert Review.)

Values in the "IMAP Keywords" IANA registry intended for common use
must be clearly documented and likely to ensure interoperability.
They must be useful, not harmful to the Internet. In cases when an
IMAP Keyword being registered is already deployed, Expert Reviewers
should favour registering it over requiring perfect documentation
and/or requesting to change the name of the IMAP Keyword.

The Expert Reviewer MAY automatically "upgrade" registration requests
for a "limited use" IMAP Keyword to "common use" level. The Expert
Reviewer MAY also request that a registration targeted for "common
use" be registered as "limited use" instead.

3.2. Comments on IMAP Keywords' Registrations

Comments on registered IMAP Keywords should be sent to both the
"owner" of the mechanism and to the mailing list designated to IMAP
keyword review (see Section 3). This improves chances of getting a
timely response.

Submitters of comments may, after a reasonable attempt to contact the
owner and after soliciting comments on the IMAP mailing list, request
the designated Expert Reviewer to attach their comment to the IMAP
keyword registration itself. The procedure is similar to requesting
an expert review for the affected keyword.

3.3. Change Control

Once an IMAP keyword registration has been published by IANA, the
owner may request a change to its definition. The change request
(including a change to the "intended usage" field) follows the same
procedure as the initial registration request, with the exception of
changes to the "Person & email address to contact for further
information" and "Owner/Change controller" fields. The latter can be
changed by the owner by informing IANA; this can be done without
discussion or review.

The IESG may reassign responsibility for an IMAP keyword. The most

common case of this will be to enable clarifications to be made to
keywords where the owner of the registration has died, moved out of
contact or is otherwise unable to make changes that are important to
the community.

IMAP keyword registrations MUST NOT be deleted; keywords which are no
longer believed appropriate for use can be declared DEPRECATED by a
change to their "intended usage" field.

The IESG is considered to be the owner of all "common use" IMAP
keywords that are published in an IETF Review document.

3.4. Initial registrations

IANA is requested to register IMAP Keywords specified in subsections
of this section in the registry established in this document.

3.4.1. $MDNSent IMAP keyword registration

Subject: Registration of IMAP keyword $MDNSent

IMAP keyword name: $MDNSent

Purpose (description): Specifies that a Message Disposition
            Notification (MDN) must not be sent for any message
            annotated with the $MDNSent IMAP keyword.

Private or Shared on a server: SHARED

Is it an advisory keyword or may it cause an automatic action: This
            keyword can cause automatic action by the client. See
            [RFC3503] for more details.

When/by whom the keyword is set/cleared: This keyword is set by an
            IMAP client when it decides to act on a MDN request, or
            when uploading a sent or draft message. It can also be
            set by a delivery agent. Once set the flag SHOULD NOT be
            cleared.

   Related keywords: None

   Related IMAP capabilities: None

   Security considerations: See section 6 of [RFC3503]

   Published specification (recommended): [RFC3503]

   Person & email address to contact for further information: Alexey
            Melnikov <alexey.melnikov@isode.com>

   Intended usage: COMMON

   Owner/Change controller: IESG

   Note:

3.4.2. $Forwarded IMAP keyword registration

   Subject: Registration of the IMAP keyword $Forwarded

   IMAP keyword name: $Forwarded

   Purpose (description): $Forwarded is used by several IMAP clients to
            specify that the message was resent to another email
            address, embedded within or attached to a new message.
            This keyword is set by the mail client when it
            successfully forwards the message to another email
            address. Typical usage of this keyword is to show a
            different (or additional) icon for a message that has
            been forwarded.

   Private or Shared on a server: BOTH

       Is it an advisory keyword or may it cause an automatic action:
                  advisory

       When/by whom the keyword is set/cleared: This keyword can be set
                  either by a delivery agent or by a mail client. Once set
                  the flag SHOULD NOT be cleared. Notes: There is no way
                  to tell if a message with $Forwarded keyword set was
                  forwarded more than once.

       Related keywords: None

       Related IMAP capabilities: None

       Security considerations: A server implementing this keyword as a
                  shared keyword, may disclose that a confidential message
                  was forwarded.

       Published specification (recommended): [RFC5550]

       Person & email address to contact for further information: Alexey
                  Melnikov <alexey.melnikov@isode.com>

       Intended usage: COMMON

       Owner/Change controller: IESG

       Note:

3.4.3. $SubmitPending IMAP keyword registration

    Subject: Registration of IMAP keyword $SubmitPending

    IMAP keyword name: $SubmitPending

Purpose (description): The $SubmitPending IMAP keyword designates
            the message as awaiting to be submitted. This keyword
            allows storing messages waiting to be submitted in the
            same mailbox where messages that were already submitted
            and/or are being edited are stored.

            A message that has both $Submitted and $SubmitPending
            IMAP keywords set is a message being actively submitted.

Private or Shared on a server: SHARED

Is it an advisory keyword or may it cause an automatic action: This
            keyword can cause automatic action by the client. See
            Section 5.10 of [RFC5550] for more details.

When/by whom the keyword is set/cleared: This keyword is set by a
            mail client when it decides that the message needs to be
            sent out.

Related keywords: $Submitted

Related IMAP capabilities: None

Security considerations: A server implementing this keyword as a
            shared keyword, may disclose that a confidential message
            is sheduled to be sent out or is being actively sent out.

Published specification (recommended): [RFC5550]

Person & email address to contact for further information: Alexey
            Melnikov <alexey.melnikov@isode.com>

Intended usage: COMMON

Owner/Change controller: IESG

Note:

3.4.4. $Submitted IMAP keyword registration

Subject: Registration of IMAP keyword $Submitted

IMAP keyword name: $Submitted

Purpose (description): The $Submitted IMAP keyword designates the
           message as being sent out.

           A message that has both $Submitted and $SubmitPending
           IMAP keywords set is a message being actively submitted.

Private or Shared on a server: SHARED

Is it an advisory keyword or may it cause an automatic action: This
           keyword can cause automatic action by the client. See
           Section 5.10 of [RFC5550] for more details.

When/by whom the keyword is set/cleared: This keyword is set by a
           mail client when it decides to start sending it.

Related keywords: $SubmitPending

Related IMAP capabilities: None

Security considerations: A server implementing this keyword as a
           shared keyword, may disclose that a confidential message
           was sent or is being actively sent out.

Published specification (recommended): [RFC5550]

Person & email address to contact for further information: Alexey
           Melnikov <alexey.melnikov@isode.com>

Intended usage: COMMON

Owner/Change controller: IESG

Note:

4. Security Considerations

IMAP Keywords are one of the base IMAP features [RFC3501]. This
document doesn't change their behaviour, so it is not adding new
security issues.

A particular IMAP keyword might have specific security
considerations, which are documented in IMAP keyword registration
template standardized by this document.

5. Acknowledgements

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on the IMAP mailing list.

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6. References

6.1. Normative References

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                    IANA Considerations Section in RFCs", BCP 26, RFC 5226,
                    May 2008.

6.2. Informative References

   [RFC3503] Melnikov, A., "Message Disposition Notification (MDN)
              profile for Internet Message Access Protocol (IMAP)",
              RFC 3503, March 2003.

   [RFC5550] Cridland, D., Melnikov, A., and S. Maes, "The Internet
              Email to Support Diverse Service Environments (Lemonade)
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