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B. Leiba
Huawei Technologies
E. Icedman
Google, Inc.
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**IMAP \$Important Keyword and \Important Special-Use Attribute
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Abstract

[RFC 6154](#) created an IMAP Special-Use LIST extension and defined an initial set of attributes. This document defines a new attribute, "\Important", and establishes a new IANA registry for IMAP folder attributes, registering the attributes defined in RFCs 3348, 3501, and 6154. This document also defines a new IMAP keyword, "\$Important", and registers it in the registry defined in [RFC 5788](#).

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[1.](#) Introduction

The Internet Message Access Protocol (IMAP) specification [[RFC3501](#)] defines the use of message keywords, and an IMAP Keywords registry is created in [[RFC5788](#)]. [[RFC6154](#)] defines an extension to the IMAP LIST command for special-use mailboxes. The extension allows servers to provide extra information (attributes) about the purpose of a mailbox and defines an initial set of special-use attributes.

This document does the following:

- o Defines a new message keyword, "\$Important", to apply to messages that are considered important for the user, by some externally defined criteria.
- o Registers the "\$Important" keyword in the IMAP Keywords registry.
- o Defines a new special-use attribute, "\Important", to designate a mailbox that will hold messages that are considered important for the user, by some externally defined criteria.
- o Creates a registry for IMAP mailbox attributes and registers the new attribute and those defined in [[RFC3348](#)], [[RFC3501](#)], and [[RFC6154](#)].

[1.1.](#) Conventions used in this document

In examples, "C:" indicates lines sent by a client that is connected to a server. "S:" indicates lines sent by the server to the client.

[2.](#) Definition of the '\$Important' Message Keyword

The "\$Important" keyword is a signal that a message is likely

important to the user. The keyword can be set by the user, or automatically by the system based on available signals (such as who the message is from, who else the message is addressed to, evaluation of the subject or content, or other heuristics).

This is distinct from the "\Flagged" system flag in two ways:

1. "\$Important" carries a specific meaning of importance, as opposed to urgency. It is meant to be used for a form of triage, with "\Flagged" remaining as a designation of special attention or particular urgency.
2. The setting of "\$Important" is expected to be based at least partly on heuristics, whereas "\Flagged" is intended to be set by the user.

3. Definition of the 'Important' Mailbox Attribute

The "\Important" mailbox attribute is a signal that the mailbox contains messages that are likely important to the user. In an implementation that also supports the "\$Important" keyword, this special use is likely to represent a virtual mailbox collecting messages (from other mailboxes) that are marked with the "\$Important" keyword. In other implementations, the system might automatically put messages there based on the same sorts of heuristics that are noted for the "\$Important" keyword (see [Section 2](#)). The distinction between "\Important" and "\Flagged" for mailboxes is similar to those between "\$Important" and "\Flagged" for messages.

3.1. Formal Syntax

The following syntax specification adds to the one in [\[RFC6154\]](#), [Section 6](#), using Augmented Backus-Naur Form (ABNF) as described in [\[RFC5234\]](#).

```
use-attr      =/ "\Important"
```

3.2. Example

In the following example, the mailbox called "Important Messages" is the one designated with the "\Important" attribute.

```
C: t1 list "" "Imp*"
S: * LIST (\HasNoChildren \Important) "/" "Important Messages"
S: * LIST (\HasNoChildren) "/" "Imported Wine"
S: t1 OK Success
```

4. Security Considerations

The security considerations in [\[RFC6154\]](#), [Section 7](#), apply equally to this extension. In particular, "Conveying special-use information to a client exposes a small bit of extra information that could be of value to an attacker." Moreover, identifying "important" messages or a place where important messages are kept could give an attacker a strategic starting point. If the algorithm by which messages are determined to be important is well known, still more information is

exposed -- perhaps, for example, there is an implication that the senders of these messages are particularly significant to the mailbox owner, and perhaps that is information that should not be made public.

As noted in [RFC 6154](#), it is wise to protect the IMAP channel from passive eavesdropping, and to defend against unauthorized discernment of the identity of a user's "\Important" mailbox or of a user's "\$Important" messages.

5. IANA Considerations

This document contains 3 actions for IANA, specified in the sections below:

1. Registration of the "\$Important" keyword.
2. Creation of a new "IMAP Mailbox Name Attributes" registry.
3. Registration of initial entries in the "IMAP Mailbox Name Attributes" registry.

5.1. Registration of the \$Important keyword

IANA is asked to register the \$Important keyword in the "IMAP Keywords" registry, as follows, using the template in [[RFC5788](#)].

IMAP keyword name: \$Important

Purpose (description): The "\$Important" keyword is a signal that a message is likely important to the user.

Private or Shared on a server: PRIVATE

Is it an advisory keyword or may it cause an automatic action: Advisory (but see the reference for details).

When/by whom the keyword is set/cleared: The keyword can be set by the user, or automatically by the system based on available signals (such as who the message is from, who else the message is addressed to, evaluation of the subject or content, or other heuristics).

Related keywords: None (but see the reference for the related mailbox name attribute).

Related IMAP capabilities: None.

Security considerations: See [\[\[THIS RFC\]\]](#), [Section 4](#)

Published specification: [\[\[THIS RFC\]\]](#)

Person & email address to contact for further information: IETF Applications Area <apps-discuss@ietf.org>

Intended usage: COMMON

Owner/Change controller: IESG

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Note: None.

5.2. Creation of the IMAP Mailbox Name Attributes Registry

IANA is asked to create a new registry in the group "Internet Message Access Protocol (IMAP)". The new registry will be called "IMAP Mailbox Name Attributes", and will have two references: "[RFC 3501, Section 7.2.2](#)", and "[[THIS RFC]], [Section 5](#)".

The registry entries will contain three fields:

1. Attribute Name
2. Description
3. Reference

IANA will keep this list in alphabetical order by Attribute Name, which is registered without the initial backslash ("\").

The registration policy for the new registry will be listed as "IETF Review or Expert Review" [[RFC5226](#)], and new registrations will be accepted in one of two ways:

1. For registrations requested in an IETF consensus document, the registration policy will be IETF Review, and the request will be made in the IANA Considerations section of the document, giving the requested values for each of the three fields.
2. For other registrations, the policy will be Expert Review policy (see [Section 5.2.1](#)), and the request will be made by sending email to IANA asking for a new IMAP Mailbox Name Attribute and giving the requested values for each of the three fields.

5.2.1. Instructions to the Designated Expert

The expert reviewer, who will be designated by the IESG, is expected to provide only a general review of the requested registration, checking that the reference and description are adequate for understanding the intent of the registered attribute. Efforts should also be made to generalize the intent of an attribute so that multiple implementations with the same requirements may reuse existing attributes. Except for this check, this is intended to be very close to a first come first served policy, and the expert should not block serious registration requests with a reasonable reference. The reference may be to any form of documentation, including a web page, but consideration should be given to providing one that is expected to be long-lived and stable.

5.3. Initial Entries for the IMAP Mailbox Name Attributes Registry

The registry will initially contain these entries:

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Attribute Name	Description	Reference
All	All messages	[RFC6154]
Archive	Archived messages	[RFC6154]
Drafts	Messages that are working drafts	[RFC6154]
Flagged	Messages with the \Flagged flag	[RFC6154]
HasChildren	Has accessible child mailboxes	[RFC3348]
HasNoChildren	Has no accessible child mailboxes	[RFC3348]
Important	Messages deemed important to user	THIS RFC
Junk	Messages identified as Spam/Junk	[RFC6154]
Marked	Server has marked the mailbox as "interesting"	[RFC3501]
NoInferiors	No hierarchy under this name	[RFC3501]
Noselect	The mailbox is not selectable	[RFC3501]
Sent	Sent mail	[RFC6154]
Trash	Messages the user has discarded	[RFC6154]
Unmarked	No new messages since last select	[RFC3501]

6. Changes During Document Development

[[RFC Editor: Please remove this section prior to publication.]]

Changes in -02

- o Added the definition and registration of \$Important.
- o Noted that \Important might be implemented as a virtual collection of \$Important messages.

Changes in -01

- o Expanded the new registry to all mailbox name attributes, and

added the attributes from 3501 and 3348 (suggested by Alexey).
This also adds those two documents to the "updates" list.

- o Recorded Cyrus's suggestion to define \$Important.

7. References

7.1. Normative References

- [RFC3501] Crispin, M., "INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1", [RFC 3501](#), March 2003.
- [RFC5226] Narten, T. and H. Alvestrand, "Guidelines for Writing an IANA Considerations Section in RFCs", [BCP 26](#), [RFC 5226](#), May 2008.
- [RFC5234] Crocker, D. and P. Overell, "Augmented BNF for Syntax Specifications: ABNF", STD 68, [RFC 5234](#), January 2008.
- [RFC6154] Leiba, B. and J. Nicolson, "IMAP LIST Extension for Special-Use Mailboxes", [RFC 6154](#), March 2011.

7.2. Informative References

- [RFC3348] Gahrns, M. and R. Cheng, "The Internet Message Action Protocol (IMAP4) Child Mailbox Extension", [RFC 3348](#), July 2002.
- [RFC5788] Melnikov, A. and D. Cridland, "IMAP4 Keyword Registry", [RFC 5788](#), March 2010.

Authors' Addresses

Barry Leiba
Huawei Technologies

Phone: +1 646 827 0648
Email: barryleiba@computer.org
URI: <http://internetmessagingtechnology.org/>

Eric Iceman
Google, Inc.

Email: iceman@google.com

