Sieve Email Filtering: delivery by mailboxid
draft-gondwana-sieve-mailboxid-00

Abstract

   The OBJECTID capability of the IMAP protocol (I-D.ietf-extra-imap-
   objectid) allows clients to identify mailboxes by a unique identifier
   which survives rename. In contrast, the Sieve mail filtering
   language (RFC 5228) currently has no such capability. This memo
   defines a Sieve extension that fills this gap: it adds a method for
   specifying the unique identifier of a mailbox as a target for
   fileinto rules, and a method for testing the existence of a mailbox
   by its unique identifier.

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1. Introduction

Sieve rules are sometimes created using graphical interfaces which
allow users to select the mailbox to be used as a target for a rule.
If that mailbox is renamed, the client may also update its internal
representation of the rule and update the sieve script to match,
however this is a multi-step process and subject to partial failures.
Also, if the folder is renamed by a different mechanism (e.g. another
IMAP client) the rules will get out of sync.

By extending "fileinto" to reference an immutable mailboxid, sieve
rules can continue to target the same mailbox, regardless of how it
gets renamed.

2. Conventions Used In This Document

The 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 BCP
14 [RFC2119] [RFC8174] when, and only when, they appear in all
capitals, as shown here.

3. Capability argument

The server must advertise the capability "mailboxid", and scripts
which use the following extensions must explicitly request the
capability "mailboxid".

Example:

```
                    require "mailboxid";
```

4. Argument ":mailboxid" to Command "fileinto"

Normally, the positional mailbox argument to a fileinto action
delivers the message in a mailbox with the matching [RFC3501] name.

This document adds a new tagged argument ":mailboxid". If the
":mailboxid" argument is provided, the positional mailbox argument
refers to an [I-D.ietf-extra-imap-objectid] mailboxid rather than an
[RFC3501] name.

If there is no mailbox with the specified ":mailboxid" then the
action is the same as if there was no named mailbox, and
implementations are free to make the same choices given in [RFC5228]
Section 4.1 when the specified mailbox doesn't exist.

The tagged argument ":mailboxid" to fileinto consumes zero additional
tokens.

Example:

```
    require "fileinto";
    require "mailboxid";

    if header :contains ["from"] "coyote" {
        fileinto :mailboxid "F6352ae03-b7f5-463c-896f-d8b48ee3";
    }
```

5. Test ":mailboxidexists"

This test behaves identically to the "mailboxexists" test defined in
[RFC5490] but operates on mailboxids rather than mailbox names.

Usage: "mailboxidexists <mailboxids: string-list>"

The "mailboxidexists" test is true if all mailboxes listed in the
"mailboxids" argument exist in the mailstore, and each allows the
user in whose context the Sieve script runs to "deliver" messages

into it. When the mailstore is an IMAP server, "delivery" of
messages is possible if:

a) the READ-WRITE response code is present for the mailbox (see
Section 7.1 of [RFC3501]), if IMAP Access Control List (ACL)
[RFC4314] is not supported by the server, or

b) the user has 'p' or 'i' rights for the mailbox (see Section 5.2 of
 [RFC4314]).

Note that a successful "mailboxidexists" test for a mailbox doesn't
necessarily mean that a "fileinto :mailboxid" action on this mailbox
would succeed. For example, the "fileinto" action might put user
over quota. The "mailboxidexists" only verifies existence of the
mailbox and whether the user in whose context the Sieve script runs
has permissions to execute "fileinto" on it.

Example:

```
require "fileinto";
require "mailboxid";

if header :contains ["from"] "coyote" {
    if mailboxidexists "F6352ae03-b7f5-463c-896f-d8b48ee3" {
        fileinto :mailboxid "F6352ae03-b7f5-463c-896f-d8b48ee3";
    } else {
        fileinto "INBOX.harassment";
    }
}
```

6. Formal Syntax

```
            test /= ":mailboxidexists" string-list

            tag /= ":mailboxid"
```

7. Security considerations

This document does not add any security considerations beyond those
in [RFC5228], [RFC5490] and [I-D.ietf-extra-imap-objectid].
Implementers are referred to the security considerations sections of
those documents.

8. IANA considerations

IANA are requested to add a capability to the sieve-extensions
registry:

     To: iana@iana.org
     Subject: Registration of new Sieve extension

     Capability name: mailboxid
     Description: adds test for checking for mailbox existence by objectid
                  and a new optional argument to fileinto to select the
                  destination mailbox using objectid.
     RFC number: this RFC
     Contact address: The EXTRA discussion list <extra@ietf.org>

9. Acknowledgements

   This document borrows heavily from [RFC5490] for the matching
   mailboxexists test, and from [I-D.ietf-extra-sieve-special-use] for
   an example of modifying the fileinto command.

10. TODO

   Is there a more explicit way to update the grammar? It seems less
   fully specified than IMAP.

11. References

11.1. Normative References

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11.2. Informative References

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