    IMAP4 Extension for Returning MYRIGHTS Information in Extended LIST
                  draft-ietf-extra-imap-list-myrights-03

Abstract

   This document defines an extension to the to IMAP LIST command that
   allows the client to request the set of rights that the logged-in
   user has been granted on mailboxes, along with other information
   typically returned by the LIST command.

Status of This Memo

   This Internet-Draft is submitted in full conformance with the
   provisions of BCP 78 and BCP 79.

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1. Introduction

   IMAP clients typically fetch the set of rights granted on mailboxes
   so they can expose the allowed functionality to the logged-in user.
   In order to do that, the client is forced to issue a LIST or LSUB
   command to list all available mailboxes, followed by a MYRIGHTS
   command for each mailbox found. This document defines an extension
   to the to IMAP LIST command that is identified by the capability
   string "LIST-MYRIGHTS". The LIST-MYRIGHTS extension allows the
   client to request the set of rights that the logged-in user has been
   granted on mailboxes, along with other information typically returned
   by the LIST command.

2. 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.

   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
   [RFC2119].

3. MYRIGHTS Return Option to LIST Command

   [RFC4314] defines the MYRIGHTS command which is used by an IMAP
   client to determine the set of rights that the logged-in user has
   been granted on a given mailbox. Frequently, a client will have to
   look up the rights for some or all of the mailboxes returned by the
   LIST command. Doing so in multiple MYRIGHTS commands wastes

bandwidth and can degrade performance if the client does not pipeline
the requests.

This document extends the LIST command with a new return option,
"MYRIGHTS", which allows the client to request all of the desired
information in a single command. For each listable mailbox matching
the list pattern and selection options, the server MUST return an
untagged LIST response and SHOULD also return an untagged MYRIGHTS
response containing the set of rights granted to the logged-in user.
The ordering of the responses is significant only in that the server
MUST NOT send a MYRIGHTS response for a given mailbox before it sends
the LIST response for that mailbox.

If the server is unable to look up the set of rights for a given
mailbox, it does not send the MYRIGHTS reply for that mailbox.

Client authors ought to note that generating the MYRIGHTS responses
for a large number of mailboxes may be an expensive operation for the
server. Clients SHOULD use a suitable match pattern and/or selection
option to limit the set of mailboxes returned to only those whose
rights in which they are interested.

[4](). Examples

In this example the "bar" mailbox doesn't exist, so it has no
MYRIGHTS reply.

```
C: A01 LIST "" % RETURN (MYRIGHTS)
S: * LIST () "." "INBOX"
S: * MYRIGHTS "INBOX" lrswipkxtecda
S: * LIST () "." "foo"
S: * MYRIGHTS "foo" lrs
S: * LIST (\NonExistent) "." "bar"
S: A01 OK List completed.
```

In this example the LIST reply for the "foo" mailbox is returned
because it has matching children, but no MYRIGHTS reply is returned
because "foo" itself doesn't match the selection criteria.

```
C: A02 LIST (SUBSCRIBED RECURSIVEMATCH) "" % RETURN (MYRIGHTS)
S: * LIST (\Subscribed) "." "INBOX"
S: * MYRIGHTS "INBOX" lrswipkxtecda
S: * LIST () "." "foo" (CHILDINFO ("SUBSCRIBED"))
S: A02 OK List completed.
```

5. Formal Syntax

The following syntax specification uses the augmented Backus-Naur
Form (BNF) as described in [RFC5234]. Terms not defined here are
taken from [RFC5258].

    return-option =/ "MYRIGHTS"

6. Security Considerations

This extension makes it a bit easier for clients to overload the
server by requesting MYRIGHTS information for a large number of
mailboxes. However, as already noted in the introduction, existing
clients already try to do that by generating a large number of
MYRIGHTS commands for each mailbox in which they are interested.
While performing MYRIGHTS information retrieval for big lists of
mailboxes, a server implementation needs to make sure that it can
still serve other IMAP connections and yield execution to other
connections, when necessary.

7. Privacy Considerations

This specification does not introduce any additional privacy concerns
beyond those described in [RFC4314].

8. IANA Considerations

8.1. Registration of IMAP capability LIST-MYRIGHTS

This document defines the "LIST-MYRIGHTS" IMAP capability to be added
to the "IMAP Capabilities" registry:
<https://www.iana.org/assignments/imap-capabilities/imap-
capabilities.xhtml#imap-capabilities-1>.

8.2. Registration of LIST-EXTENDED option MYRIGHTS

This section registers the "MYRIGHTS" option to be added to the
"LIST-EXTENDED options" registry: <https://www.iana.org/assignments/
imap-list-extended/imap-list-extended.xhtml#imap-list-extended-1>.

LIST-EXTENDED option name: MYRIGHTS

LIST-EXTENDED option type: RETURN

LIST-EXTENDED option description: Causes the LIST command to return
   MYRIGHTS responses in addition to LIST responses.

Published specification: RFC XXXX, Section 3

   Security considerations: RFC XXXX, Section 6

   Intended usage: COMMON

   Person and email address to contact for further
                           information:
      Kenneth Murchison <murch@fastmail.com>

   Owner/Change controller: IESG <iesg@ietf.org>

9. Acknowledgments

   This document is based largely on RFC5819. The authors would like to
   thank the authors of that document for providing both inspiration and
   some borrowed text for this document. The authors would also like to
   thank the following individuals for contributing their ideas and
   support for writing this specification: Barry Leiba.

10. Normative References

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Appendix A. **Change History (To be removed by RFC Editor before**
             publication)

   Changes from draft-ietf-extra-imap-list-myrights-02:

   o WGLC editorial changes from Barry Leiba.

   Changes from draft-ietf-extra-imap-list-myrights-01:

   o Removed 'n' right from example.

   o Added advice to client authors regarding expense of calculating
      MYRIGHTS.

   o Replicated Security Considerations section from RFC 5819.

   Changes from draft-ietf-extra-imap-list-myrights-00:

   o Corrected contact email address in IANA registration.

   o Fixed typos (extra SP) in examples.

   Changes from draft-murchison-imap-list-myrights-01:

   o Renamed document to be a work product of the EXTRA WG.

   o Updated authors' addresses.

   Changes from draft-murchison-imap-list-myrights-00:

   o Augmented Introduction with mention of "LIST-MYRIGHTS" capability
      string.

   o Minor editorial changes.

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