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**The IMAP APPENDLIMIT Extension**  
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Abstract

This memo defines an extension to the IMAP service whereby a server can advertise its capability, to support maximum mail upload size using CAPABILITY and SELECT/EXAMINE command.

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**1. Introduction**

Several IMAP server have limitation in mail upload size which is not published to the email client. When email client APPEND a mail with huge attachments, it fails due to size restriction set by the IMAP server. This results in unnecessary resource usage, especially in the mobile device environment, appending mail with huge attachment consumes device resources like device battery power and mobile data.

The IMAP APPENDLIMIT extension provides an ability to advertise maximum upload size allowed by the IMAP server, so that email client knows the size limitation beforehand.

**1.1. Conventions and Terminology**

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](#).

Example lines prefaced by "C:" are sent by the client and ones prefaced by "S:" by the server. The five characters [...] means that something has been elided.

**2. APPENDLIMIT Extension**

An IMAP server that supports APPENDLIMIT advertises this by including the word APPENDLIMIT in its capability list. IMAP server shall publish the supported mail upload size as part of CAPABILITY response. The advertised upload limit is common across the mailboxes, but client can still issue SELECT/EXAMINE command to get the mailbox specific

upload limit set by the IMAP server. In this case, APPENDLIMIT value obtained as part of SELECT/EXAMINE command takes precedence over the value returned as part of CAPABILITY response.

The following example, demonstrates the APPENDLIMIT capability with mailbox limit.

```
C: t1 CAPABILITY
S: * CAPABILITY IMAP4rev1 ID APPENDLIMIT=257890
S: t1 OK foo
```

If APPENDLIMIT value is omitted in CAPABILITY response, then client SHOULD issue SELECT/EXAMINE command to get the mailbox specific limit set by the server. New response code APPENDLIMIT is added to get the mailbox specific limit. Refer section [5] for response code syntax.

The following example demonstrates, its usage.

```
C: t1 CAPABILITY
S: * CAPABILITY IMAP4rev1 ID APPENDLIMIT
S: t1 OK foo

C: t2 SELECT INBOX
S: * 172 EXISTS
S: * OK [APPENDLIMIT 257890] Maximum upload limit
S: * OK [UIDVALIDITY 3857529045] UIDs valid
S: * FLAGS (\Answered \Flagged \Deleted \Seen \Draft)
S: * OK [PERMANENTFLAGS (\Deleted \Seen \*)] Limited
S: t2 OK [READ-WRITE] SELECT completed
```

By looking at the upload size restriction set by the IMAP server, client SHALL not try to upload mail more than advertised limit in the APPEND command.

### **3. SELECT response**

IMAP server may have mailbox specific maximum upload limit. Client can get the limit by issuing the SELECT/EXAMINE command. APPENDLIMIT size to this mailbox is obtained as part of untagged OK response.

In this case, this APPENDLIMIT value will supersede the value received as part of CAPABILITY response.

```
C: t2 SELECT INBOX
S: * 172 EXISTS
S: * OK [APPENDLIMIT 257890] Maximum upload limit
S: [...]
S: t2 OK [READ-WRITE] SELECT completed
```

In the above example, APPENDLIMIT represents the maximum upload size for this mailbox.

OK [APPENDLIMIT <n>] Maximum upload limit for this mailbox, in bytes. Refer to section [5] for more information. If this is missing, the client can always honour the value received as part of CAPABILITY response.

#### 4. APPEND response

If client uploads a mail which exceeds the maximum upload size set to that mailbox, then server shall reject the APPEND command with a tagged NO response with maximum allowed size set by the server.

The following example demonstrates, its usage.

```
C: t1 APPEND "Draft" (\SEEN \DRAFT) {98994952}
S: t1 NO [APPENDLIMIT 257890] Exceeds the maximum allowed size
```

Client can avoid use of LITERAL+, when maximum upload size supported by the IMAP server is unknown.

#### 5. Formal syntax

The following syntax specification uses the Augmented Backus-Naur Form (ABNF) notation as specified in [[RFC5234](#)] including the core rules in [Appendix B.1. \[RFC3501\]](#) defines the non-terminals "capability" and "resp-text-code".

Except as noted otherwise, all alphabetic characters are case-insensitive. The use of upper or lower case characters to define token strings is for editorial clarity only. Implementations MUST accept these strings in a case-insensitive fashion.

```
appendlimit-cap = "APPENDLIMIT" ["=" nz-number]
capability /= appendlimit-cap
```

```
appendlimit-respcode = "APPENDLIMIT" SP nz-number
resp-text-code /= appendlimit-respcode
```

A non-zero number indicating the fixed maximum message size in bytes that the server will accept. The syntax of the parameter follows the augmented BNF notation of [[RFC 5234](#)]. If this capability is omitted, no information is conveyed about the server's fixed maximum mail upload size.

## **6. Security Consideration**

It is believed that this extension doesn't add any new security considerations that are not already present in the base IMAP protocol [[RFC3501](#)].

## **7. IANA Considerations**

The IANA is requested to add APPENDLIMIT to the IMAP4 Capabilities Registry. [[Note to RFC-editor: please remove the following before publication: This registration should take place at the following location: <http://www.iana.org/assignments/imap4-capabilities>]]

## **8. References**

### **8.1 Normative References**

The following documents contain definitions or specifications that are necessary to understand this document properly

- [RFC2119] Bradner, "Key words for use in RFCs to Indicate Requirement Levels", [RFC 2119](#), Harvard University, March 1997.
- [RFC3501] Crispin, "INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1", University of Washington, March 2003
- [RFC5234] Crocker, Overell, "Augmented BNF for Syntax Specifications: ABNF", [RFC 5234](#), Brandenburg Internetworking, Demon Internet Ltd, January 2008
- [RFC5322] P. Resnick, Ed, "Internet Message Format", [RFC 5322](#), Qualcomm Incorporated, October 2008
- [RFC2088] J. Myers, Carnegie Mellon, "IMAP4 non-synchronizing literals", January 1997

### **8. 2 Informative References**

The following documents describe related protocols:

- [RFC2087] Myers, J., "IMAP4 QUOTA extension", [RFC 2087](#), January 1997
- [RFC7377] B. Leiba, A. Melnikov, "IMAP4 Multimapbox SEARCH Extension", [RFC 7377](#), October 2014

**9. Acknowledgement**

TBD

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