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Lemonade Inband Notifications
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Abstract

This document specifies how Internet Message Store Events can be represented as IMAP ([RFC 3501](#)) untagged responses.

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1. Requirements notation

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 [[RFC2119](#)].

In examples, "C:" and "S:" indicate lines sent by the client and server respectively. If a single "C:" or "S:" label applies to multiple lines, then the line breaks between those lines are for editorial clarity only and are not part of the actual protocol exchange.

2. Introduction

IMAP [[IDLE](#)] extension defines how an IMAP [[RFC3501](#)] server can push notifications to an IMAP client. This mechanism is suitable for transporting of Internet Message Store events [[MSGEVENTS](#)] "inband". However the [[IDLE](#)] extension doesn't provide any guidance on how different Message Store events can be represented in IMAP. This document is attempting to fill this gap.

3. Mapping of Internet Message Store Events to IMAP responses

[[anchor4: Note that some event types require that the server supports certain IMAP extensions (e.g. QUOTA).]]

3.1. Message Addition and Deletion for the currently selected mailbox

An AppendMessage or NewMessage event related to one or more messages in the currently selected mailbox (if any) MUST be reported as an EXISTS response. The server MAY also send a RECENT response, if the server would mark the message as \Recent. [[anchor6: This doesn't provide UID of the new message.]] If the bodyStructure parameter is included in the event, it MUST be returned in a FETCH response

containing the BODYSTRUCTURE FETCH item. If the FETCH response is returned it MUST contain the UID FETCH item.

Note that a single EXISTS response can be returned for multiple AppendMessage/NewMessage events.

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Example:

```
S: * 161 EXISTS
S: * 161 FETCH (UID 25627 BODYSTRUCTURE (("TEXT" "PLAIN"
("CHARSET" "US-ASCII") NIL NIL "7BIT" 1152 23)(
"TEXT" "PLAIN" ("CHARSET" "US-ASCII" "NAME"
"trip.txt")
"<960723163407.20117h@washington.example.com>"
"Your trip details" "BASE64" 4554 73) "MIXED"))
```

Example:

```
S: * 162 EXISTS
S: * 4 RECENT
```

An ExpireMessage or ExpungeMessage event related to a message in the currently selected mailbox MUST be reported as an EXPUNGE response. [[anchor7: Recommend the EXPUNGED response?]]

[[anchor8: OverQuota - Use OVERQUOTA response code defined in the expired [draft-cridland-imap-quota-xx.txt](#).]]

[[anchor9: UnderQuota - TBD]]

[3.2.](#) Message Addition and Deletion for other mailboxes

An AppendMessage/NewMessage/ExpireMessage/ExpungeMessage event related to one or more messages in any mailbox rather than the currently selected one MUST result in an untagged STATUS response,

containing MESSAGES status data item. Other status data items MAY be included. `[[anchor11: What about UIDVALIDITY status item?]]`

Example:

```
S: * STATUS blurrybloop (MESSAGES 231 RECENT 8
    UIDVALIDITY 765)
```

`[[anchor12: OverQuota - TBD]]`

`[[anchor13: UnderQuota - TBD]]`

[3.3.](#) Message Flags events for the currently selected mailbox

All message flag events related to one or more messages in the currently selected mailbox (if any) MUST be reported as a FETCH response containing FLAGS and UID fetch items.

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[3.4.](#) Message Flags events for other mailboxes

`[[anchor16: TBD]]`

[3.5.](#) Access Accounting events

`[[anchor18: TBD]]`

[3.6.](#) Mailbox management events

`[[anchor20: These events are not currently defined in MSGEVENTS.]]`

Mailbox creation MUST be reported as a LIST response, containing mailbox attributes which are usually returned in a LIST response.

Mailbox deletion MUST be reported as a LIST response, containing \NonExistent mailbox attribute [[LISTEXT](#)].

Mailbox rename - TBD. `[[anchor21: This would require a new LIST extended data item.]]`

[4.](#) Security Considerations

[[anchor23: TBD]]

[5.](#) IANA Considerations

This document doesn't require any action from IANA.

[6.](#) References

[6.1.](#) Normative References

[LISTEXT] Leiba, B. and A. Melnikov, "IMAP4 LIST Command Extensions", April 2006.

[MSGEVENTS] Newman, C., "Internet Message Store Events", June 2006.

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.

[RFC3501] Crispin, M., "INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1", [RFC 3501](#), March 2003.

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[6.2.](#) Informative References

[IDLE] Leiba, B., "IMAP4 IDLE Command", [RFC 2177](#), June 1997.

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