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Display-based Address Sorting for the IMAP4 SORT Extension draft-karp-morg-sortdisplay-00

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Abstract

This document describes an IMAP protocol extension enabling server-side message sorting based on the commonly-displayed portion of the From header.

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1. Conventions Used in This Document

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

2. Introduction

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The [\[SORT\] \(Crispin, M. and K. Murchison, "Internet Message Access Protocol - SORT and THREAD Extensions," June 2008.\)](#) extension to the [\[IMAP\] \(Crispin, M., "INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1," March 2003.\)](#) protocol provides a means for server-based sorting of messages. It defines a set of sort criteria and the mechanism for determining the sort value of a message for each such ordering.

The [\[SORT\] \(Crispin, M. and K. Murchison, "Internet Message Access Protocol - SORT and THREAD Extensions," June 2008.\)](#) extension's FROM ordering sorts messages lexically on the [\[IMAP\] \(Crispin, M., "INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1," March 2003.\)](#) addr-part of the first address in the From header. This document provides an alternate ordering, DISPLAYFROM, which sorts messages lexically based on the From address's [\[RFC2822\] \(Resnick, P., "Internet Message Format," April 2001.\)](#) display-name, when present.

A server that supports the DISPLAYFROM sort criterion indicates this by returning "SORT=DISPLAYFROM" in its CAPABILITY response.

3. The DISPLAYFROM Sort Key

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This document introduces a new [\[SORT\] \(Crispin, M. and K. Murchison, "Internet Message Access Protocol - SORT and THREAD Extensions," June 2008.\)](#) sort-key, DISPLAYFROM.

A message's sort value under the DISPLAYFROM ordering MUST be derived from the first [\[RFC2822\] \(Resnick, P., "Internet Message Format," April 2001.\)](#) mailbox in its From header as follows:

- *If the From header is absent or if the header contains no mailboxes, the message's sort value is the empty string.
- *If the mailbox contains an [\[RFC2822\] \(Resnick, P., "Internet Message Format," April 2001.\)](#) display-name, replace each instance of [\[RFC2822\] \(Resnick, P., "Internet Message Format," April 2001.\)](#) CFWS in the display-name with a single space, trim all leading and trailing whitespace, and decode any [\[RFC2047\] \(Moore, K., "MIME \(Multipurpose Internet Mail Extensions\) Part Three: Message Header Extensions for Non-ASCII Text," November 1996.\)](#) encoded-words. If the resulting string is not the empty string, use it as the sort value for the message.
- *Otherwise, completely remove all [\[RFC2822\] \(Resnick, P., "Internet Message Format," April 2001.\)](#) CFWS from the mailbox's [\[RFC2822\] \(Resnick, P., "Internet Message Format," April 2001.\)](#) addr-spec and use the resulting string as the message's sort value.

4. Formal Syntax

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The following syntax specification uses the Augmented Backus-Naur Form (ABNF) notation as specified in [\[RFC2234\] \(Crocker, D., Ed. and P. Overell, "Augmented BNF for Syntax Specifications: ABNF," November 1997.\)](#). [\[IMAP\] \(Crispin, M., "INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1," March 2003.\)](#) defines the non-terminal "capability" and [\[SORT\] \(Crispin, M. and K. Murchison, "Internet Message Access Protocol - SORT and THREAD Extensions," June 2008.\)](#) defines "sort-key".

capability =/
"SORT=DISPLAYFROM"

sort-key =/
"DISPLAYFROM"

5. Security Considerations

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This document defines an additional IMAP4 capability. As such, it does not change the underlying security considerations of [\[IMAP\] \(Crispin, M., "INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1," March 2003.\)](#).

The author believes that no new security issues are introduced with this additional IMAP4 capability.

6. Internationalization Considerations

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DISPLAYFROM is a string-based sort criterion. As stated in [\[SORT\]](#) (Crispin, M. and K. Murchison, "Internet Message Access Protocol - SORT and THREAD Extensions," June 2008.), the collations mandated by I18NLEVEL=1 or I18NLEVEL=2 from [\[RFC5255\]](#) (Newman, C., Gulbrandsen, A., and A. Melnikov, "Internet Message Access Protocol Internationalization," June 2008.) MUST be followed when sorting such strings.

The DISPLAYFROM ordering sorts on the full decoded [\[RFC2822\]](#) (Resnick, P., "Internet Message Format," April 2001.) display-name, when present. It does not attempt to parse this string in a locale- or language-dependent manner in order to determine and sort on some semantically meaningful substring such as the surname.

7. IANA Considerations

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[\[IMAP\]](#) (Crispin, M., "INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1," March 2003.) capabilities are registered by publishing a standards track or IESG-approved experimental RFC. This document constitutes registration of the SORT=DISPLAYFROM capability in the [\[IMAP\]](#) (Crispin, M., "INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1," March 2003.) capabilities registry.

8. Normative References

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[IMAP]	Crispin, M., " INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1 ," RFC 3501, March 2003 (TXT).
[RFC2047]	Moore, K. , " MIME (Multipurpose Internet Mail Extensions) Part Three: Message Header Extensions for Non-ASCII Text ," RFC 2047, November 1996 (TXT , HTML , XML).
[RFC2119]	Bradner, S. , " Key words for use in RFCs to Indicate Requirement Levels ," BCP 14, RFC 2119, March 1997 (TXT , HTML , XML).
[RFC2234]	Crocker, D., Ed. and P. Overell , " Augmented BNF for Syntax Specifications: ABNF ," RFC 2234, November 1997 (TXT , HTML , XML).
[RFC2822]	Resnick, P., " Internet Message Format ," RFC 2822, April 2001 (TXT).

[RFC5255]	Newman, C., Gulbrandsen, A., and A. Melnikov, " Internet Message Access Protocol Internationalization ," RFC 5255, June 2008 (TXT).
[SORT]	Crispin, M. and K. Murchison, " Internet Message Access Protocol - SORT and THREAD Extensions ," RFC 5256, June 2008 (TXT).

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