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**Update to Internet Message Format to Allow Group Syntax in the 'From:'
Header Field
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Abstract

The Internet Message Format ([RFC 5322](#)) allows "group" syntax in some email header fields, such as "To:" and "CC:", but not in "From:". This document updates [RFC 5322](#) to relax that restriction, allowing group syntax in "From:".

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1. Introduction

The Internet Message Format [[RFC5322](#)] allows "group" syntax in some email header fields, such as "To:" and "CC:", but not in "From:". As use cases for group syntax evolve, particularly with respect to email address internationalization issues, it is becoming clear that there is little value in forbidding that usage, and significant value in allowing it. This document updates [RFC 5322](#) to relax that restriction, allowing group syntax in "From:".

1.1. Notational Conventions

The notational conventions here are the same as those in [RFC 5322](#), and the following two subsections are copied directly from that document.

1.1.1. Requirements Notation

This document occasionally uses terms that appear in capital letters. When the terms "MUST", "SHOULD", "RECOMMENDED", "MUST NOT", "SHOULD NOT", and "MAY" appear capitalized, they are being used to indicate particular requirements of this specification. A discussion of the meanings of these terms appears in [[RFC2119](#)].

1.1.2. Syntactic Notation

This specification uses the Augmented Backus-Naur Form (ABNF) [[RFC5234](#)] notation for the formal definitions of the syntax of messages. Characters will be specified either by a decimal value (e.g., the value %d65 for uppercase A and %d97 for lowercase A) or by a case-insensitive literal value enclosed in quotation marks (e.g., "A" for either uppercase or lowercase A).

2. Allowing Group Syntax in 'From'

[Section 3.6.2 of RFC 5322](#) defines the "From:" header field as containing a "mailbox-list" syntax element. This changes that definition to use the "address-list" syntax element, as is used in other fields, such as "To:", "CC:", and "Reply-To:".

The following normative section replaces [Section 3.6.2 of RFC 5322](#).

2.1. Replacement of [RFC 5322, Section 3.6.2. Originator Fields](#)

In version -00, this section is UNCHANGED FROM [RFC 5322](#), to make it easier to use DIFF to see the actual changes. You're welcome.

The originator fields of a message consist of the from field, the sender field (when applicable), and optionally the reply-to field. The from field consists of the field name "From" and a comma-separated list of one or more mailbox specifications. If the from field contains more than one mailbox specification in the mailbox-list, then the sender field, containing the field name "Sender" and a single mailbox specification, MUST appear in the message. In either case, an optional reply-to field MAY also be included, which contains the field name "Reply-To" and a comma-separated list of one or more addresses.

from = "From:" mailbox-list CRLF

sender = "Sender:" mailbox CRLF

reply-to = "Reply-To:" address-list CRLF

The originator fields indicate the mailbox(es) of the source of the message. The "From:" field specifies the author(s) of the message, that is, the mailbox(es) of the person(s) or system(s) responsible for the writing of the message. The "Sender:" field specifies the mailbox of the agent responsible for the actual transmission of the message. For example, if a secretary were to send a message for another person, the mailbox of the secretary would appear in the "Sender:" field and the mailbox of the actual author would appear in the "From:" field. If the originator of the message can be indicated by a single mailbox and the author and transmitter are identical, the "Sender:" field SHOULD NOT be used. Otherwise, both fields SHOULD appear.

Note: The transmitter information is always present. The absence of the "Sender:" field is sometimes mistakenly taken to mean that the agent responsible for transmission of the message has not been specified. This absence merely means that the transmitter is identical to the author and is therefore not redundantly placed into the "Sender:" field.

The originator fields also provide the information required when replying to a message. When the "Reply-To:" field is present, it indicates the address(es) to which the author of the message suggests that replies be sent. In the absence of the "Reply-To:" field, replies SHOULD by default be sent to the mailbox(es) specified in the "From:" field unless otherwise specified by the person composing the reply.

In all cases, the "From:" field SHOULD NOT contain any mailbox that does not belong to the author(s) of the message. See also [section 3.6.3](#) for more information on forming the destination addresses for a

reply.

3. Security Considerations

See the Internet Message Format specification [[RFC5322](#)] for general discussion of security considerations related to the formatting of email messages.

The "From" address is special, in that most user agents display that address, or the "friendly" text associated with it, to the end user, and label that so as to identify it as the origin of the message (as implied in [Section 3.6.2 of RFC 5322](#)). Group syntax in the "From" header field can be used to hide the identity of the message originator. It is as easy to use a fabricated "From" address to accomplish the same thing, so allowing group syntax does not exacerbate the problem.

Some protocols attempt to validate that originator address by matching the "From" address to a particular verified domain (see Author Domain Signing Practices (ADSP) [[RFC5617](#)] for one such protocol). Such protocols will not be applicable to messages that lack an actual email address (whether real or fake) in the "From" field, and local policy will determine how such messages are handled. Senders, therefore, need to be aware that using group syntax in the "From" might adversely affect deliverability of the message.

4. IANA Considerations

No IANA actions are requested by this document, and the RFC Editor is asked to remove this section before publication.

5. References

5.1. Normative References

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.
- [RFC5234] Crocker, D. and P. Overell, "Augmented BNF for Syntax Specifications: ABNF", STD 68, [RFC 5234](#), January 2008.
- [RFC5322] Resnick, P., Ed., "Internet Message Format", [RFC 5322](#), October 2008.

5.2. Informative References

[RFC5617] Allman, E., Fenton, J., Delany, M., and J. Levine,
"DomainKeys Identified Mail (DKIM) Author Domain Signing
Practices (ADSP)", [RFC 5617](#), August 2009.

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