

Network Working Group
Internet-Draft
Intended status: Informational
Expires: March 18, 2021

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September 14, 2020

React: Indicating Summary Reaction to a Message
draft-crocker-inreply-react-00

Abstract

The popularity of social media has led to user comfort with easily signaling basic reactions to an author's posting, such as with a 'thumbs up' or 'smiley' graphic indication. This specification permits a similar facility for Internet Mail.

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Table of Contents

1.	Introduction	2
2.	In-Reply-React	3
3.	Usability Considerations	3
4.	Possible Issues	4
5.	Security Considerations	4
6.	IANA Considerations	4
7.	References	4
7.1.	Normative References	4
7.2.	Informative References	4
	Author's Address	5

[1.](#) Introduction

The popularity of social media has led to user comfort with easily signaling summary reactions to an author's posting, by marking basic emoji graphics, such as with a 'thumbs up', 'heart', or 'smiley' indication. Sometimes the permitted repertoire is constrained to a small set and sometimes a more extensive range of indicators is supported.

This specification defines a similar facility for Internet Mail.

While it is already possible to include symbols and graphics as part of an email reply's content, there has not been an established means of signalling the semantic substance that such data are to be taken as a summary 'reaction' to the original message. That is, a mechanism to identify symbols as specifically providing a summary reaction to the cited message, rather than merely being part of the free text in the body of a response. Such a structured use of the symbol(s) allows recipient MUAs to correlate this reaction to the original message and possibly to display the information distinctively.

This facility defines a header field, to be used in junction with the In-Reply-To header field, to link one or more emojis as a summary reaction to a previous message.

Unless provided here, terminology, architecture and specification used in this document are incorporated from [[Mail-Arch](#)], [[Mail-Fmt](#)] and [[ABNF](#)].

Discussion of this specification should take place on the ietf-822@ietf.org mailing list.

Crocker

Expires March 18, 2021

[Page 2]

2. In-Reply-React

A message sent as a reply MAY indicate the responder's summary reaction to the original message by including an In-Reply-React header field:

The [\[ABNF\]](#) for the header field is:

```
in-reply-react = "In-Reply-React:" emoji *(lwsp emoji) CRLF
```

```
emoji = {character from Unicode Emoji List}
```

An emoji character is taken from [\[Emoji-List\]](#).

The emoji(s) express a recipient's summary reaction to the specific message referenced by the accompanying In-Reply-To header field. [\[Mail-Fmt\]](#).

For recipient MUAs that do not support this mechanism, the header field might not be displayed to the recipient. To ensure that the reaction is presented to the recipient, the the responding MUA MAY automatically include a second copy of the header field in the message body. This might be as the first line of the body or as the first mime-part. [\[MIME\]](#) By making the text be the full header field, it also allows MUAs that do support the mechanism to identify this redundant information and possibly remove it from display.

3. Usability Considerations

This specification defines a mechanism for the structuring and carriage of information. It does not define any user-level details of use. However the design of the user-level mechanisms associated with this facility is paramount. This section discusses some issues to consider .

Creation: Because an email environment is different from a typical social media platform, there are some choices needed in the design of the user interface to support indication of a reaction. Is the reaction to be sent only to the original author, or should it be sent to all recipients? Should the reaction always be sent in a discrete message containing only the reaction, or should the user also be able to include other message content? (Note that this specification permits the inclusion of this other content.)

Crocker

Expires March 18, 2021

[Page 3]

Display: Reaction indications are likely to be most useful when displayed in close visual proximity to the original message, rather than merely as part of an email response thread.

4. Possible Issues

- o Should the specification permit only one emoji? Why (not)?

5. Security Considerations

This specification defines a distinct location for specialized message content. Processing that handles the content differently from content in the message body might introduce vulnerabilities. However the mere definition or use of this mechanism does not create new vulnerabilities.

6. IANA Considerations

None.

7. References

7.1. Normative References

- [ABNF] Crocker, D. and P. Overell, "Augmented BNF for Syntax Specifications: ABNF", [RFC 5234](#), January 2008.
- [Emoji-List] Unicode Consortium, "Full Emoji List, v13.0", WEB <https://unicode.org/emoji/charts/full-emoji-list.html>.
- [Mail-Arch] Crocker, D., "Internet Mail Architecture", [RFC 5598](#), July 2009.
- [Mail-Fmt] Resnick, P., Ed., "Internet Message Format", [RFC 5322](#), October 2008.

7.2. Informative References

- [MIME] Freed, N. and N. Borenstein, "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies", [RFC 2045](#), November 1996.

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