

**Applicability Statement for IETF Core Email Protocols**  
**draft-ietf-emailcore-as-00**

Abstract

Electronic mail is one of the oldest Internet applications that is still in very active use. While the basic protocols and formats for mail transport and message formats have evolved slowly over the years, events and thinking in more recent years have supplemented those core protocols with additional features and suggestions for their use. This Applicability Statement describes the relationship among many of those protocols and provides guidance and makes recommendations for the use of features of the core protocols.

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## Table of Contents

<a href="#">1.</a>	Introduction . . . . .	<a href="#">2</a>
<a href="#">2.</a>	Applicability of Some SMTP Provisions . . . . .	<a href="#">3</a>
<a href="#">3.</a>	Applicability of Message Format Provisions . . . . .	<a href="#">3</a>
<a href="#">4.</a>	MIME and Its Implications . . . . .	<a href="#">3</a>
<a href="#">5.</a>	Other Stuff . . . . .	<a href="#">4</a>
<a href="#">6.</a>	Acknowledgments . . . . .	<a href="#">4</a>
<a href="#">7.</a>	IANA Considerations . . . . .	<a href="#">4</a>
<a href="#">8.</a>	Security Considerations . . . . .	<a href="#">4</a>
<a href="#">9.</a>	References . . . . .	<a href="#">4</a>
<a href="#">9.1.</a>	Normative References . . . . .	<a href="#">4</a>
<a href="#">9.2.</a>	Informative References . . . . .	<a href="#">5</a>
<a href="#">Appendix A.</a>	Change Log . . . . .	<a href="#">6</a>
A.1.	Changes from <a href="#">draft-klensin-email-core-as-00</a> (2020-03-30) to <a href="#">draft-ietf-emailcore-as-00</a> . . . . .	<a href="#">6</a>
Author's Address	. . . . .	<a href="#">6</a>

## [1.](#) Introduction

In its current form, this draft is a placeholder and beginning of an outline for the Applicability Statement that has been discussed as a complement for proposed revisions of the base protocol specifications for SMTP [[RFC5321](#)] (being revised as ID.RFC5321bis [[ID.RFC5321bis](#)]) and Internet Message Format [[RFC5322](#)] (being revised as ID.RFC5322bis [[ID.RFC5322bis](#)]). Among other things, it is expected to capture topics that a potential WG concludes are important but that should not become part of those core documents.

As discussed in [RFC 2026](#) [[RFC2026](#)],

"An Applicability Statement specifies how, and under what circumstances, one or more TSs may be applied to support a particular Internet capability."

That form of a standards track document is appropriate because one of the roles of such a document is to explain the relationship among technical specification, describe how they are used together, and make statements about what is "required, recommended, or elective".

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](#) [[RFC2119](#)] and [RFC 8174](#) [[RFC8174](#)].

Klensin

Expires April 9, 2021

[Page 2]

## **2. Applicability of Some SMTP Provisions**

Over the years since [RFC 5321](#) was published in October 2008, usage of SMTP has evolved, machines and network speeds have increased, and the frequency with which SMTP senders and receivers have to be prepared to deal with systems that are disconnected from the Internet for long periods or that require many hops to reach has decreased. During the same period, the IETF has become much more sensitive to privacy and security issues and the need to be more resistant or robust against spam and other attacks. In addition SMTP (and Message Format) extensions have been introduced that are expected to evolve the Internet's mail system to better accommodate environments in which Basic Latin Script is not the norm.

This section describes adjustments that may be appropriate for SMTP under various circumstances and discusses the applicability of other protocols that represent newer work or that are intended to deal with relatively newer issues.

[[CREF1: ... Actual content to be supplied after WG consideration.]]

## **3. Applicability of Message Format Provisions**

Placeholder:

I am not sure what, if anything, goes here. If nothing does, we drop the section.

[[CREF2: ... Actual content to be supplied after WG consideration.]]

## **4. MIME and Its Implications**

When the work leading to the original version of the MIME specification was completed in 1992 [[RFC1341](#)], the intention was that it be kept separate from the specification for basic mail headers in [RFC 822](#) [[RFC0822](#)]. That plan was carried forward into [RFC 822](#)'s successors, [RFC 2822](#) [[RFC2822](#)] and [RFC 5322](#) [[RFC5322](#)] and the successors of that original MIME specification including [RFC 2045](#) [[RFC2045](#)]. The decision to do so was different from the one made for SMTP, for which the core specification was changed to allow for the extension mechanism [[RFC1425](#)] which was then incorporated into [RFC 5321](#) and its predecessor [[RFC2821](#)].

Various uses of MIME have become nearly ubiquitous in contemporary email while others may have fallen into disuse or been repurposed from the intent of their original design.



It may be appropriate to make some clear statements about the applicability of MIME and its features.

## **5. Other Stuff**

It is fairly clear that there will be things that do not fit into the sections outlined above. As one example, if the IETF wants to say something specific about signatures over headers or what (non-trace) headers may reasonably be altered in transit, that may be more appropriate to other sections than to any of the three suggested above.

## **6. Acknowledgments**

... To be supplied...

[[CREF3: But don't forget to mention the discussions on the SMTP list of the reasons for this document in the last half of 2019. ]]

## **7. IANA Considerations**

This memo includes no requests to or actions for IANA. The IANA registries associated with the protocol specifications it references are specified in their respective documents.

## **8. Security Considerations**

All drafts are required to have a security considerations section and this one eventually will.

... To be supplied ...

## **9. References**

### **9.1. Normative References**

[RFC2026] Bradner, S., "The Internet Standards Process -- Revision 3", [BCP 9](#), [RFC 2026](#), DOI 10.17487/RFC2026, October 1996, <<https://www.rfc-editor.org/info/rfc2026>>.

[RFC2045] Freed, N. and N. Borenstein, "Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies", [RFC 2045](#), DOI 10.17487/RFC2045, November 1996, <<https://www.rfc-editor.org/info/rfc2045>>.

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), DOI 10.17487/RFC2119, March 1997, <<https://www.rfc-editor.org/info/rfc2119>>.



- [RFC8174] Leiba, B., "Ambiguity of Uppercase vs Lowercase in [RFC 2119](#) Key Words", [BCP 14](#), [RFC 8174](#), DOI 10.17487/RFC8174, May 2017, <<https://www.rfc-editor.org/info/rfc8174>>.

## 9.2. Informative References

- [ID.RFC5321bis] Klensin, J., "Simple Mail Transfer Protocol", December 2019, <<https://datatracker.ietf.org/doc/draft-klensin-rfc5321bis/>>.
- [ID.RFC5322bis] Resnick, P., "Internet Message Format", December 2019, <<https://datatracker.ietf.org/doc/draft-resnick-rfc5322bis/>>.
- [RFC0822] Crocker, D., "STANDARD FOR THE FORMAT OF ARPA INTERNET TEXT MESSAGES", STD 11, [RFC 822](#), DOI 10.17487/RFC0822, August 1982, <<https://www.rfc-editor.org/info/rfc822>>.
- [RFC1341] Borenstein, N. and N. Freed, "MIME (Multipurpose Internet Mail Extensions): Mechanisms for Specifying and Describing the Format of Internet Message Bodies", [RFC 1341](#), DOI 10.17487/RFC1341, June 1992, <<https://www.rfc-editor.org/info/rfc1341>>.
- [RFC1425] Klensin, J., Freed, N., Ed., Rose, M., Stefferud, E., and D. Crocker, "SMTP Service Extensions", February 1993, <<https://www.rfc-editor.org/info/rfc1425>>.
- [RFC2821] Klensin, J., Ed., "Simple Mail Transfer Protocol", [RFC 2821](#), DOI 10.17487/RFC2821, April 2001, <<https://www.rfc-editor.org/info/rfc2821>>.
- [RFC2822] Resnick, P., Ed., "Internet Message Format", [RFC 2822](#), DOI 10.17487/RFC2822, April 2001, <<https://www.rfc-editor.org/info/rfc2822>>.
- [RFC5321] Klensin, J., "Simple Mail Transfer Protocol", [RFC 5321](#), DOI 10.17487/RFC5321, October 2008, <<https://www.rfc-editor.org/info/rfc5321>>.
- [RFC5322] Resnick, P., Ed., "Internet Message Format", [RFC 5322](#), DOI 10.17487/RFC5322, October 2008, <<https://www.rfc-editor.org/info/rfc5322>>.





## **Appendix A. Change Log**

RFC Editor: Please remove this appendix before publication.

### **A.1. Changes from [draft-klensin-email-core-as-00](#) (2020-03-30) to [draft-ietf-emailcore-as-00](#)**

- o Change of filename, metadata, and date to reflect transition to WG document for new emailcore WG. No other substantive changes

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