

EMAILCORE WG

IETF 121 – November 2024

A/S Open Issues

Editors:

John Klensin <john-ietf@jck.com>

Ken Murchison <murch@fastmail.com>

#40 - Recommended SMTP Extensions

<https://github.com/ietf-wg-emailcore/emailcore/issues/40>

Updated -12 text (Klensin):

- MUST support RFC 6152 - 8-bit MIME
- ~~MUST support RFC 3461 - Delivery Status Notifications~~

Delivery Status Notifications [RFC3461] requests, while recommended and useful if supported, have not been widely implemented and deployed.

Mail systems that send such requests should be prepared for systems that receive them to not recognize or support them.

Note that this extension for notification requests is distinct from the format of notifications defined in [RFC3464] and [RFC6533], and the special media type defined in [RFC6522].

All of those SHOULD be supported.

#78 - Advice against using URL %-encoding on non ASCII email addresses to create ASCII version of them

<https://github.com/ietf-wg-emailcore/emailcore/issues/78>

Updated -12 text (Klensin & Murchison):

Proper generation and transmission of email addresses containing non-ASCII characters is discussed in [RFC6530]. Section 9 of [RFC6530] says: "a downgrade mechanism that transforms the local part of an email address cannot be utilized in transit." This is actually just a special case of a principle, discussed in Section 2.3.11 of [I-D.ietf-emailcore-rfc5321bis] and elsewhere, that nothing other than the final delivery system should attempt to interpret or alter the local-part of an address. In particular, they MUST NOT:

- * use web URI percent encoding (see Section 2.1 of [RFC3986]) in either the local-part or the domain-part of an address

- * perform Internationalized Domain Names for Applications (IDNA) Punycode Conversion (see Section 4.4 of [RFC5891]) on the domain-part of an address

since none of these encodings will produce an address that is guaranteed to be treated as equivalent to the original one.

#79 - Add Internationalization Considerations section

<https://github.com/ietf-wg-emailcore/emailcore/issues/79>

Updated -12 text:

Similarly, the following extensions SHOULD be supported by SMTP senders and receivers:

- * Command Pipelining [RFC2920]
- * Internationalized Email ([RFC6530], [RFC6531], [RFC6532])

#84 - Add text about handling of Trace Header Fields by MUAs

<https://github.com/ietf-wg-emailcore/emailcore/issues/84>

Updated -12 text (Resnick & Murchison):

Many mail user agents (MUAs) have functions which use an existing email message as a template for editing a new message. For example, an MUA may take an existing message, allow the user to replace the originator and destinations, edit parts of the body, and send it on to the new recipients. When performing such functions, the MUA SHOULD:

- * Remove all header fields unknown to the MUA
- * Remove any header fields that are only pertinent to the transport of the original message, such as trace header fields (see Section 3.6.7 of [I-D.ietf-emailcore-rfc5322bis])

#85 - Add text to A/S about what mail agents should do/not do with Received header fields

<https://github.com/ietf-wg-emailcore/emailcore/issues/85>

Update -12 text (Crocker, et al):

3.2.2. Consumption

Received header fields support analysis of handling and delivery problems, as well as aiding evaluation of a message with suspicious content or attributes. The fields are easily created and have no direct security or privacy protections, and the fields can contain personally sensitive information.

Therefore, the fields do not warrant automatic trust and do warrant careful consideration before disclosing to others. They should be used with care, for whatever information is deemed valuable, and especially when syntax or values occur that are not defined by the specifications [I-D.ietf-emailcore-rfc5321bis] [I-D.ietf-emailcore-rfc5322bis].

#94 – Use of Quoted Strings

<https://github.com/ietf-wg-emailcore/emailcore/issues/94>

Updated -12 text:

3.1. Use of Empty Quoted Strings

The quoted-string ABNF non-terminal is used in various places in [I-D.ietf-emailcore-rfc5322bis] grammar. While it allows for empty quoted string, such construct is going to cause interoperability issues when used in certain header fields. In particular, use of empty quoted strings is **NO RECOMMENDED discouraged** in "received-token" (a component of a Received header field) **and** ~~"keywords" (a component of a Keywords header field) and "local-part" (left hand side of email addresses. Use of empty quoted strings is in particular problematic in the "local-part".~~

For example, all of the following email **addresses header fields** are non-interoperable:

~~""@example.com~~

Received: from node.example by x.y.test "" foo; 21 Nov 1997 10:01:22 -0600

Keywords: foo, "", bar

Use of empty quoted strings is fine in "display-name".

#92 – CNAME handling in “5.1. Locating the Target Host”

<https://github.com/ietf-wg-emailcore/emailcore/issues/92>

Per IETF 120, John Klensin to propose text.

#93 – “7.3. VRFY, EXPN, and Security” should point to SMTP AUTH RFC

<https://github.com/ietf-wg-emailcore/emailcore/issues/93>

Per IETF 120, Alexey to propose text.

#96 – Popular misuse of multipart/alternative relative to its original purpose

<https://github.com/ietf-wg-emailcore/emailcore/issues/96>

Issue mentioned by John Klensin.

What exactly is the issue?

#97 – Extra Security and Privacy Considerations

<https://github.com/ietf-wg-emailcore/emailcore/issues/97>

Donald Eastlake suggests we add something like the following:

* Transport authentication between SMTP systems could improve the authenticity of the Received line added by a server but does not protect those lines against modification, in violation of this document, by subsequent SMTP systems.

* Nation State intelligence agencies and others on occasion, have been known, even in the case of extremely high bandwidth traffic mixing many streams, for example between large data centers, as well as lower bandwidth connections, to capture and hold immense quantities of raw traffic for potential later analysis, so there may be good reason to encrypt transmissions between SMTP systems.