

## Sieve Email Filtering: Subaddress Extension

### Status of This Memo

This document specifies an Internet standards track protocol for the Internet community, and requests discussion and suggestions for improvements. Please refer to the current edition of the "Internet Official Protocol Standards" (STD 1) for the standardization state and status of this protocol. Distribution of this memo is unlimited.

### Abstract

On email systems that allow for 'subaddressing' or 'detailed addressing' (e.g., "ken+sieve@example.org"), it is sometimes desirable to make comparisons against these sub-parts of addresses. This document defines an extension to the Sieve Email Filtering Language that allows users to compare against the user and detail sub-parts of an address.

### Table of Contents

1. Introduction .....	2
2. Conventions Used in This Document .....	2
3. Capability Identifier .....	2
4. Subaddress Comparisons .....	2
5. IANA Considerations .....	5
6. Security Considerations .....	5
7. Normative References .....	5
Appendix A. Acknowledgments .....	6
Appendix B. Changes since RFC 3598 .....	6

## 1. Introduction

Subaddressing is the practice of augmenting the local-part of an [RFC2822] address with some 'detail' information in order to give some extra meaning to that address. One common way of encoding 'detail' information into the local-part is to add a 'separator character sequence', such as "+", to form a boundary between the 'user' (original local-part) and 'detail' sub-parts of the address, much like the "@" character forms the boundary between the local-part and domain.

Typical uses of subaddressing might be:

- o A message addressed to "ken+sieve@example.org" is delivered into a mailbox called "sieve" belonging to the user "ken".
- o A message addressed to "5551212#123@example.com" is delivered to the voice mailbox number "123" at phone number "5551212".

This document describes an extension to the Sieve language defined by [RFC5228] for comparing against the 'user' and 'detail' sub-parts of an address.

## 2. Conventions Used in This Document

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].

## 3. Capability Identifier

The capability string associated with the extension defined in this document is "subaddress".

## 4. Subaddress Comparisons

Test commands that act exclusively on addresses may take the optional tagged arguments ":user" and ":detail" to specify what sub-part of the local-part of the address will be acted upon.

NOTE: In most cases, the envelope "to" address is the preferred address to examine for subaddress information when the desire is to sort messages based on how they were addressed so as to get to a specific recipient. The envelope address is, after all, the reason a given message is being processed by a given sieve script for a given user. This is particularly true when mailing lists,

aliases, and 'virtual domains' are involved since the envelope may be the only source of detail information for the specific recipient.

NOTE: Because the encoding of detailed addresses are site and/or implementation specific, using the subaddress extension on foreign addresses (such as the envelope "from" address or originator header fields) may lead to inconsistent or incorrect results.

The ":user" argument specifies the user sub-part of the local-part of an address. If the address is not encoded to contain a detail sub-part, then ":user" specifies the entire left side of the address (equivalent to ":localpart").

The ":detail" argument specifies the detail sub-part of the local-part of an address. If the address is not encoded to contain a detail sub-part, then the address fails to match any of the specified keys. If a zero-length string is encoded as the detail sub-part, then ":detail" resolves to the empty value ("").

NOTE: If the encoding method used for detailed addresses utilizes a separator character sequence, and the separator character sequence occurs more than once in the local-part, then the logic used to split the address is implementation-defined and is usually dependent on the format used by the encompassing mail system.

Implementations MUST make sure that the encoding method used for detailed addresses matches that which is used and/or allowed by the encompassing mail system, otherwise unexpected results might occur. Note that the mechanisms used to define and/or query the encoding method used by the mail system are outside the scope of this document.

The ":user" and ":detail" address parts are subject to the same rules and restrictions as the standard address parts defined in [RFC5228], Section 2.7.4.

For convenience, the "ADDRESS-PART" syntax element defined in [RFC5228], Section 2.7.4, is augmented here as follows:

```
ADDRESS-PART  =/  ":user" / ":detail"
```

A diagram showing the ADDRESS-PARTs of an email address where the detail information follows a separator character sequence of "+" is shown below:

```

      :user "+" :detail  "@" :domain
    \-----/
      :local-part

```

A diagram showing the ADDRESS-PARTs of a email address where the detail information precedes a separator character sequence of "--" is shown below:

```

      :detail "--" :user  "@" :domain
    \-----/
      :local-part

```

Example (where the detail information follows "+"):

```

require ["envelope", "subaddress", "fileinto"];

# In this example the same user account receives mail for both
# "ken@example.com" and "postmaster@example.com"

# File all messages to postmaster into a single mailbox,
# ignoring the :detail part.
if envelope :user "to" "postmaster" {
    fileinto "inbox.postmaster";
    stop;
}

# File mailing list messages (subscribed as "ken+mta-filters").
if envelope :detail "to" "mta-filters" {
    fileinto "inbox.ietf-mta-filters";
}

# Redirect all mail sent to "ken+foo".
if envelope :detail "to" "foo" {
    redirect "ken@example.net";
}

```

## 5. IANA Considerations

The following template specifies the IANA registration of the subaddress Sieve extension specified in this document. This registration replaces that from RFC 3598:

To: iana@iana.org

Subject: Registration of new Sieve extension

Capability name: subaddress

Description: Adds the ':user' and ':detail' address parts  
for use with the address and envelope tests

RFC number: RFC 5233

Contact address: The Sieve discussion list <ietf-mta-filters@imc.org>

This information has been added to the list of Sieve extensions given on <http://www.iana.org/assignments/sieve-extensions>.

## 6. Security Considerations

Security considerations are discussed in [RFC5228]. It is believed that this extension does not introduce any additional security concerns.

## 7. Normative References

- [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.
- [RFC2822] Resnick, P., "Internet Message Format", RFC 2822, April 2001.
- [RFC5228] Guenther, P., Ed., and T. Showalter, Ed., "Sieve: An Email Filtering Language", RFC 5228, January 2008.

## Appendix A. Acknowledgments

Thanks to Tim Showalter, Alexey Melnikov, Michael Salmon, Randall Gellens, Philip Guenther, Jutta Degener, Michael Haardt, Ned Freed, Mark Mallett, and Barry Leiba for their help with this document.

## Appendix B. Changes since RFC 3598

- o Discussion of how the user and detail information is encoded now uses generic language.
- o Added note detailing that this extension is most useful when used on the envelope "to" address.
- o Added note detailing that this extension isn't very useful on foreign addresses (envelope "from" or originator header fields).
- o Fixed envelope test example to only use "to" address.
- o Replaced ":user" example with one that doesn't produce unexpected behavior.
- o Refer to the zero-length string ("") as "empty" instead of "null" (per RFC 5228).
- o Use only RFC 2606 domains in examples.
- o Miscellaneous editorial changes.

## Author's Address

Kenneth Murchison  
Carnegie Mellon University  
5000 Forbes Avenue  
Cyert Hall 285  
Pittsburgh, PA 15213  
USA

Phone: +1 412 268 2638  
EMail: [murch@andrew.cmu.edu](mailto:murch@andrew.cmu.edu)

## Full Copyright Statement

Copyright (C) The IETF Trust (2008).

This document is subject to the rights, licenses and restrictions contained in BCP 78, and except as set forth therein, the authors retain all their rights.

This document and the information contained herein are provided on an "AS IS" basis and THE CONTRIBUTOR, THE ORGANIZATION HE/SHE REPRESENTS OR IS SPONSORED BY (IF ANY), THE INTERNET SOCIETY, THE IETF TRUST AND THE INTERNET ENGINEERING TASK FORCE DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

## Intellectual Property

The IETF takes no position regarding the validity or scope of any Intellectual Property Rights or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; nor does it represent that it has made any independent effort to identify any such rights. Information on the procedures with respect to rights in RFC documents can be found in BCP 78 and BCP 79.

Copies of IPR disclosures made to the IETF Secretariat and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this specification can be obtained from the IETF on-line IPR repository at <http://www.ietf.org/ipr>.

The IETF invites any interested party to bring to its attention any copyrights, patents or patent applications, or other proprietary rights that may cover technology that may be required to implement this standard. Please address the information to the IETF at [ietf-ipr@ietf.org](mailto:ietf-ipr@ietf.org).

