

Network Working Group
Request for Comments: 3894
Category: Standards Track

J. Degener
Sendmail, Inc.
October 2004

Sieve Extension: Copying Without Side Effects

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.

Copyright Notice

Copyright (C) The Internet Society (2004).

Abstract

The Sieve scripting language allows users to control handling and disposal of their incoming e-mail. By default, an e-mail message that is processed by a Sieve script is saved in the owner's "inbox". Actions such as "fileinto" and "redirect" cancel this default behavior.

This document defines a new keyword parameter, ":copy", to be used with the Sieve "fileinto" and "redirect" actions. Adding ":copy" to an action suppresses cancellation of the default "inbox" save. It allows users to add commands to an existing script without changing the meaning of the rest of the script.

1. Introduction

The Sieve scripting language [SIEVE] allows users to control handling and disposal of their incoming e-mail. Two frequently used Sieve commands are "fileinto" (saving into a local message store, such as an IMAP server) and "redirect" (forwarding to another e-mail address). Both of these cancel the Sieve default behavior of saving into the user's "inbox".

But some users have the notion of forwarding an extra copy of a message for safekeeping to another e-mail address, or of saving a copy in a folder - in addition to the regular message delivery, which shouldn't be affected by the copy.

If saving an extra copy is all the user wanted to do,

```
fileinto "unfiltered";
keep;
```

would do the job. The "keep" command does explicitly what the cancelled default behavior did. But the explicit "keep" is a poor substitute for the implicit "keep" when more processing follows:

```
fileinto "unfiltered";
keep;

if header "Subject" "MAKE MONEY FAST!!!"
{
    discard;
}
```

In this example, the "discard" is ineffective against the explicit "keep"; the discarded message still ends up in the user's inbox.

It is possible to generate Sieve code that perfectly expresses a user's wishes, but such code quickly grows unwieldy because it needs to keep track of the state that the implicit "keep" would have had without the "fileinto" or "redirect" command.

This extension tries to make life easier for user interface designers and script writers by allowing them to express the "copy" semantics directly.

2. Conventions used

Conventions for notations are as in [SIEVE] section 1.1, including use of [KEYWORDS] and "Syntax:" label for the definition of action and tagged arguments syntax.

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

3. ":copy" extension to the "fileinto" and "redirect" commands

Syntax:

```
"fileinto" [":copy"] <folder: string>
"redirect" [":copy"] <address: string>
```

If the optional ":copy" keyword is specified with "fileinto" or "redirect", the tagged command does not cancel the implicit "keep". Instead, it merely files or redirects a copy in addition to whatever else is happening to the message.

RFC 3894 Sieve Extension - Copy Without Side Effects October 2004

Example:

```
require ["copy", "fileinto"];
fileinto :copy "incoming";

# ... more processing follows ...
```

4. Security Considerations

The "copy" extension makes it easier to eavesdrop on a user's message stream without the user noticing. This was technically possible before if an attacker gained read/write access to a user's Sieve scripts, but now an attacker no longer needs to parse a script in order to modify it. Write access to Sieve scripts must be protected as strongly as read/write access to e-mail, for example by using secure directory protocols such as correctly parameterized LDAP over TLS [LDAP].

Organizations that wish to monitor their users' e-mail traffic must familiarize themselves with local data protection laws before creating stores of old e-mail traffic without control, or perhaps even knowledge, of the sender or intended recipients.

Organizations that legally use "redirect :copy" to eavesdrop on correspondence (for example, by keeping a log to answer questions about insider trading at a later time) can avoid future problems by setting users' privacy expectations correctly.

5. IANA Considerations

The following template specifies the IANA registration of the "copy" Sieve extension specified in this document.

To: iana@iana.org
Subject: Registration of new Sieve extension

Capability name: copy
Capability keyword: copy
Capability arguments: N/A
Standards Track: RFC 3894
Person and email address to contact for further information:

Jutta Degener
Sendmail, Inc.
6425 Christie Ave, 4th Floor
Emeryville, CA 94608

Email: jutta@sendmail.com

RFC 3894 Sieve Extension - Copy Without Side Effects October 2004

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

6. Acknowledgments

Thanks to Eric Allman, Ned Freed, Will Lee, Nigel Swinson, and Rand Wacker for corrections and comments.

7. References

7.1. Normative References

[KEYWORDS] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, March 1997.

[SIEVE] Showalter, T., "Sieve: A Mail Filtering Language", RFC 3028, January 2001.

7.2. Informative References

[LDAP] Wahl, M., Alvestrand, H., Hodges, J., and R. Morgan, "Authentication Methods for LDAP", RFC 2829, May 2000.

Author's Address

Jutta Degener
Sendmail, Inc.
6425 Christie Ave, 4th Floor
Emeryville, CA 94608

E-Mail: jutta@sendmail.com

RFC 3894 Sieve Extension - Copy Without Side Effects October 2004

Full Copyright Statement

Copyright (C) The Internet Society (2004).

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/S HE REPRESENTS OR IS SPONSORED BY (IF ANY), THE INTERNET SOCIETY 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 IETF's procedures with respect to rights in IETF 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.

Acknowledgement

Funding for the RFC Editor function is currently provided by the Internet Society.

