SIEVE Email Filtering: MIME Extension
draft-daboo-sieve-mime-00

Abstract

This document describes the SIEVE Email Filtering "mime" extension which adds a new test for testing the values of MIME headers in a message.

Open Issues (will be removed prior to publication as an RFC)

a. How to deal with MIME encoding/splitting of parameters, i18n etc

Change History (to be removed prior to publication as an RFC)

Changes:
 a. Initial draft.
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1. Introduction and Overview

The SIEVE Email Filtering [RFC3028] specification currently does not provide a way to test the values of MIME [RFC2045] part headers within a message. Currently, all that can be done is a standard "header" test against the top-level message headers (and thus the top-level MIME part of the message). However, it is handy to be able to check for values in any MIME part headers, or check for the presence of specific MIME types etc. This extension introduces a new "mime" test that allows the values of every MIME part header to be tested.

2. Conventions Used in This Document

Conventions for notations are as in [RFC3028] section 1.1, including use of [RFC2119].

3. SIEVE MIME Extension

3.1 General Considerations

SIEVE implementations that implement the "mime" test have an identifier of "mime" for use with the capability mechanism. If the "mime" test is used in a SIEVE script, the corresponding capability item MUST appear in the script’s "require" statement. Like the "header" test in [RFC3028], folding of long header lines (as described in [RFC2822]) is removed prior to interpretation of the data.

3.2 Test "mime"

Syntax:   mime [COMPARATOR] [MATCH-TYPE] <header-names: string-list> [<parameter-names: string-list>] <key-list: string-list>

The "mime" test evaluates to true if any MIME header name, or any parameter within a MIME header name, matches any key. The type of match is specified by the optional match argument, which defaults to ":is" if not provided, as specified in section 2.6 of [RFC3028].

If no parameter-names argument is present, then the entire content of the headers specified in the header-names argument is evaluated. So if a message contained the MIME header:

   Content-Type: image/jpeg; filename="example.jpg"

these tests on that MIME header evaluate as follows:
mime :contains ["Content-Type"] ["image"] => true
mime :contains ["Content-Type"] ["jpg"] => true
mime :contains ["Content-Type"] ["filename"] => true
mime :contains ["Content-Type"] ["gif"] => false

If the parameter-names argument is present, then only the content of matching MIME parameters in the specified headers are evaluated. So if a message contained the MIME header:

```
Content-Type: image/jpeg; filename="example.jpg"
```

these tests on that MIME header evaluate as follows:

```
mime :contains ["Content-Type"] ["filename"] ["image"] => false
mime :contains ["Content-Type"] ["filename"] ["jpg"] => true
mime :contains ["Content-Type"] ["filename"] ["filename"] => false
mime :contains ["Content-Type"] ["filename"] ["gif"] => false
mime :contains ["Content-Type"] ["name"] ["jpg"] => false
```

If the parameter-names argument is present, but contains a single empty string, then the content of specified MIME header, excluding any parameters, will be evaluated. So if a message contained the MIME header:

```
Content-Type: image/jpeg; filename="example.jpg"
```

these tests on that MIME header evaluate as follows:

```
mime :contains ["Content-Type"] [""] ["image"] => true
mime :contains ["Content-Type"] [""] ["jpg"] => false
mime :contains ["Content-Type"] [""] ["filename"] => false
mime :contains ["Content-Type"] [""] ["gif"] => false
```

Like the "header" test in [RFC3028], this test returns true if any combination of the header-names, parameters-names and key-list arguments match.

Like the "header" test in [RFC3028], if a MIME header listed in the header-names argument exists, it contains the null key ("""). However, if the named header is not present, it does not contain the null key. So if a message contained the MIME header:

```
Content-Caffeine: C8H10N4O2
```

these tests on that header evaluate as follows:

```
mime :is ["Content-Caffeine"] ["""] => false
mime :contains ["Content-Caffeine"] ["""] => true
```
A similar behaviour applies to MIME parameters specified by the 
parameter-names argument:

Content-Caffeine: C8H10N4O2; param1=example

these tests on that parameter evaluate as follows:

mime :is ["Content-Caffeine"] ["param1"] ["]       => false
mime :contains ["Content-Caffeine"] ["param1"] ["] => true

4. Security Considerations

The "mime" extension does not raise any security considerations that
are not present in the base [RFC3028] protocol, and these issues are
discussed in [RFC3028].

5. IANA Considerations

The following template specifies the IANA registration of the Sieve 
extension specified in this document:

5.1 mime registration

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

Capability name: mime
Capability keyword: mime
Capability arguments:
mime [COMPARATOR] [MATCH-TYPE]
<header-names: string-list>
[<parameter-names: string-list>]
<key-list: string-list>
Standards Track/IESG-approved experimental RFC number: this RFC
Person and email address to contact for further information:

Cyrus Daboo
Cyrusoft International, Inc.
5001 Baum Blvd., Suite 780,
Pittsburgh, PA 15213
U.S.A.

<mailto:daboo@cyrusoft.com>

This information should be added to the list of sieve extensions
given on http://www.iana.org/assignments/sieve-extensions.
References


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