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R. Gellens
QUALCOMM

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ACAP Email Account Dataset Class

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A version of this draft document is intended for submission to the RFC editor as a Proposed Standard for the Internet Community. Discussion and suggestions for improvement are requested.

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1. Abstract

It has become common for Internet mail users to have more than one account where mail is received, to access multiple accounts from the same machine, to access the same accounts from different machines, and to use multiple programs which require email account configuration information.

The Application Configuration Access Protocol [ACAP] provides an ideal mechanism for storage of email account data.

This specification defines a standard ACAP dataset class for email accounts, and a common option for indicating a default email account.

2. Conventions Used in this Document

The key words "MUST", "MUST NOT", "SHOULD", "SHOULD NOT", and "MAY" in this document are to be interpreted as defined in "Key words for use in RFCs to Indicate Requirement Levels" [KEYWORDS].

3. Comments

Public comments can be sent to the IETF ACAP mailing list, <ietf-acap+@andrew.cmu.edu>. To subscribe, send a message to <ietf-acap-request+@andrew.cmu.edu> with the word SUBSCRIBE as the

body. Private comments should be sent to the author.

4. ACAP Standard Options

This specification defines the Message User Agent (MUA) Default Account standard option. This is a scaler option in the ACAP Standard Option ("/option") dataset. The entry name is "mua.default.account". The "option.value" attribute contains the value, which is a URL. Generally, this will be an ACAP URL pointing to an entry in an Email Account dataset.

The standard option dataset class is specified in [ACAP-OPTIONS]. ACAP URLs are defined in [ACAP].

5. ACAP Email Account Dataset Class

The ACAP Email Account dataset class defines a set of attributes which specify an email account; that is, configuration information used for access to email on a POP [POP3] or IMAP [IMAP4] server.

5.1. ACAP Email Account Dataset Class Prefix

Datasets whose names begin with "/email" are assumed to contain email account entries as defined in this specification.

5.2. ACAP Email Account Dataset Hierarchy

Each user may have a set of named email accounts. The default is pointed at by the "mua.default.account" standard option. (See section 4 for more information.)

Inheritance is likely to be useful both for inheriting site or group defaults (for example, POP or IMAP servers, and initial client configuration in general) as well as for inheriting user-specific configuration when using different machines.

6. ACAP Email Account Dataset Attributes

An email account entry MUST have an "entry" attribute. All other attributes are OPTIONAL.

Attributes are specified using Augmented Backus-Naur Form [ABNF]. All attributes are single-valued and textual (non-binary) unless otherwise stated.

The ABNF defines the content of the attribute values prior to their encoding as an ACAP string. Clients MUST conform to the syntax when generating these attributes, but MUST NOT assume that the attribute values will conform to this syntax on access. Servers MUST NOT enforce the syntax.

6.1. Basic Attributes

These attributes are defined in ACAP [ACAP] and have meaning in all dataset classes. The section describes how they are used in an email account dataset.

entry
: The "entry" attribute is used to hold a unique name for the email account. This name is used for inheritance, so when customizing an account which has an entry in an inherited dataset, the entry name needs to remain the same. The name should also be descriptive, as it is suitable for user display.

subdataset
: The "subdataset" attribute indicates that there is a subdataset of this entry. The value of this attribute specifies the actual location of the subdataset, per [ACAP] section 3.1.1.

6.2. Specific Attributes

These attributes are specific to the Email Account dataset class.

email.check-interval
: This specifies the interval, in seconds, between checks (polls) for new mail. A value of 0 indicates that automatic mail checks SHOULD NOT be done.

```
email-check-int      = 1*DIGIT
```

email.connection-type
: This contains a token indicating the type of connection used for this email account. Clients might use this information to modify their use of bandwidth.

```
email-conn           = "LAN" / "cable-modem" / "phone-modem" /
                       "mobile-phone"
```

email.imap.download-type
This specifies which elements of messages are to be downloaded when populating or resynchronizing a mailbox. This is only useful when accessing messages via IMAP [IMAP4]. "Headers" indicates only minimal message information, such as sender, recipient, and subject. "Structure" specifies important headers and body structure information. "Body" means headers, body structure information and the contents of body parts, but not attachments. "Attachments" indicates all elements of messages.

```
email-dload      = "headers" / "structure" / "body" / "inline" /
                   "attachments"
```


email.leave-on-server.flag
This specifies if the client should delay deleting mail from the server after downloading. This is generally useful only with POP servers [POP3] which support this.

```
email-lmos-flag      = "0" / "1"
```

email.leave-on-server.days
When email.leave-on-server.flag is set (value is "1"), this attribute specifies the number of days messages should remain on the server before being deleted by the client. This is generally useful only with POP servers [POP3] which support leaving mail on the server. Note that a value of "0" indicates that clients should never automatically delete mail from the server.

```
email-lmos-days      = 1*DIGIT
```

email.maximum.download-size
This contains the maximum size (in octets) of messages to be downloaded. This is most useful when accessing messages via POP [POP3]. A value of "0" indicates no limit.

```
email-max-dsize      = 1*DIGIT
```

email.personality
This specifies the default personality to assign to messages received via this email account. It is generally an ACAP URL to an entry in an Email Personality dataset. The ACAP Email Personality dataset class is specified in [ACAP-PERSONALITY]. ACAP-URLs are defined in [ACAP].

```
email-personality    = url ;defined in [URL-BASIC]
```

email.server.IMAP
The indicates the default IMAP server to use with this email account. It is generally an IMAP URL, as specified in [URL-IMAP].

email-imap = url ;defined in [URL-BASIC]

email.server.POP
This specifies the POP server associated with this email account. It is generally a POP URL, as defined in [URL-POP].

email-pop = url ;defined in [URL-BASIC]

email.server.Local
This indicates that this email account refers to a mailstore on the local client. When set to "1", the "email.server.IMAP" and "email.server.POP" attributes are ignored.

email-local = "0"/"1"

email.sieve.script
This specifies the text of a Sieve script which will be applied by the delivery agent (if supported) to mail arriving at this email account. Sieve is specified in [SIEVE].

email-sieve = 1*UTF8-CHAR

email.sieve.syntax.errors
If supported by the Sieve implementation, this attribute contains the count of syntax errors detected in the most recently stored Sieve script. Sieve is specified in [SIEVE].

email-sieve-synerr = 1*DIGIT

email.sieve.syntax.warnings
If supported by the Sieve implementation, this attribute contains the count of syntax warnings detected in the most recently stored Sieve script. Sieve is specified in [SIEVE].

email-sieve-synwarn = 1*DIGIT

email.sieve.syntax.errtxt
If supported by the Sieve implementation, this attribute contains the text of syntax errors detected in the most recently stored Sieve script. The error text is formated into CRLF-separated lines, one line per error. Each line contains

named attributes of the error, in a MIME-header-like format. The currently specified attributes are: line, offset, length, and text. Text MUST always be the last attribute. Sieve is specified in [SIEVE].

The format is intended to be easy for a Sieve execution agent to generate, and easy for a Sieve user agent to parse. The Sieve user agent could use the information to highlight the indicated section of the Sieve script text, as specified by the line, offset, and length.

```
email-sieve-errtxt  = *(non-text-sieve-att ";" SP) text-sieve-att
non-text-sieve-att  = sieve-att-line / sieve-att-off /
                      sieve-att-len / sieve-att-ext
text-sieve-att      = "text" ":" 1*UTF8-CHAR
sieve-att-line      = "line" ":" 1*DIGIT
sieve-att-off       = "offset" ":" 1*DIGIT
sieve-att-len       = "length" ":" 1*DIGIT
sieve-att-ext       = 1*UTF8-CHAR ":" 1*UTF8-CHAR
                      ; MUST not use ":" or ";"
```

email.sieve.syntax.warntxt

If supported by the Sieve implementation, this attribute contains the text of syntax warnings detected in the most recently stored Sieve script. The warning text is formated into CRLF-separated lines, one line per warning. Each line contains named attributes of the warning, in a MIME-header-like format. The currently specified attributes are: line, offset, length, and text. Text MUST always be the last attribute. Sieve is specified in [SIEVE].

```
email-sieve-warntxt = email-sieve-errtxt
```

email.boring-headers

This multi-valued attribute is a list of header prefixes. If the client has a mode where it suppresses display of certain headers and/or properties of messages, headers which start with a prefix included in this attribute are candidates for suppression. Prefix strings are case-insensitive.

```
email-boring        = 1*VCHAR
```

7. Examples

```
    entry                       = "home"
    email.connection-type       = "phone-modem"
    email.personality           = "home"
    email.server.pop            = "POP://jru;AUTH=APOP@pop.isp.com"
    email.sieve.script          = "IF SIZE OVER 100k
                                       DISCARD;"
    email.boring-headers        = ("received" "message" "x400")


    entry                       = "work
    email.connection-type       = "direct
    email.personality           = "work
    email.server.imap           = "IMAP://jru@mail.bigcorp.com
    email.sieve.script          = {47}
                                  IF HEADER "FROM" IS "BOSS"
                                     FILEINTO "STUFF"
```

8. References

[ABNF] Crocker, Overell, "Augmented BNF for Syntax Specifications: ABNF", RFC 2234, Internet Mail Consortium, Demon Internet Ltd., November 1997. <ftp://ftp.isi.edu/in-notes/rfc2234.txt>

[ACAP] Newman, Myers, "ACAP -- Application Configuration Access Protocol", RFC 2244, Innosoft, Netscape, November 1997. <ftp://ftp.isi.edu/in-notes/rfc2244.txt>

[ACAP-OPTIONS] Hole, "ACAP Application Options Dataset Class", The Esys Corporation, Work in Progress, February 1998. <ftp://ftp.ietf.org/internet-drafts/draft-ietf-acap-options-xx.txt>

[ACAP-PERSONALITY] Gellens, "ACAP Email Personality Dataset Class", QUALCOMM Incorporated, Work in Progress. <ftp://ftp.ietf.org/internet-drafts/draft-ietf-acap-pers-xx.txt>

[IMAP4] Crispin, "Internet Message Access Protocol - Version 4rev1", RFC 2060, University of Washington, December 1996.

[KEYWORDS] Bradner, "Key words for use in RFCs to Indicate Requirement Levels", RFC 2119, Harvard University, March 1997. <ftp://ftp.isi.edu/in-notes/rfc2119.txt>

[POP3] Myers, Rose, "Post Office Protocol -- Version 3", RFC 1939, Carnegie Mellon, Dover Beach Consulting, Inc., May 1996. <ftp://ftp.isi.edu/in-notes/rfc1939.txt>

[SIEVE] Showalter, "Sieve -- a Mail Filtering Language", Carnegie Mellon, Work in Progress. <ftp://ftp.ietf.org/internet-drafts/draft-showalter-sieve-xx.txt>\

[URL-BASIC] Berners-Lee, Masinter, McCahill, "Uniform Resource Locators (URL)", RFC 1738, CERN, Xerox Corporation, University of Minnesota, December 1994. <ftp://ftp.isi.edu/in-notes/rfc1738.txt>

[URL-IMAP] Newman, "IMAP URL Scheme", RFC 2192, Innosoft, September 1997. <ftp://ftp.isi.edu/in-notes/rfc2192.txt>

[URL-POP] Gellens, "POP URL Scheme", RFC 2384, QUALCOMM Incorporated, August 1998. <ftp://ftp.isi.edu/in-notes/rfc2384.txt>

[UTF8] Yergeau, F. "UTF-8, a transformation format of ISO 10646", RFC 2279, Alis Technologies, January 1998. <ftp://ftp.isi.edu/in-notes/rfc2279.txt>

9. Security Considerations

As with ACAP datasets in general, it is important that access controls are set correctly on Email Account datasets. Besides the server URLs, the Sieve script may contain highly personal information which should not be disclosed except by explicit owner request.

10. Author's Address

Randall Gellens
QUALCOMM Incorporated
6455 Lusk Blvd.
San Diego, CA 92121-2779
U.S.A.

+1 619 651 5115
Randy@Qualcomm.Com

11. Full Copyright Statement