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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", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC 2119](#) [[KEYWORDS](#)].

## [3.](#) Changes Since the Previous Version

- Added attributes:
  - email.mailbox-prefix,
  - email.sieve.capability,
  - email.sieve.runtime.errors,
  - email.sieve.runtime.warnings,

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- email.sieve.runtime.errtxt,
  - email.sieve.runtime.warntxt,
  - email.trash-folder.
- Fixed ABNF for email-sieve-errtxt.
- Added text for email.maximum.download-size regarding use with IMAP [[IMAP4](#)].
- Added mention of multiple Sieve scripts.
- Clarified email vs. personalities datasets.
- Updated Sieve script examples.
- Added section on items in the "capabilities" dataset.

#### **4. 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.

#### **5. ACAP Standard Options**

This specification defines the Message User Agent (MUA) Default Account standard option. This is a scalar 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](#)].

#### **6. 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 mail on a POP [[POP3](#)] or IMAP [[IMAP4](#)] server.

Configuration information related to composing and sending mail is stored in the ACAP Email Personality Dataset Class [[ACAP-PERSONALITY](#)].

## **6.1. ACAP Email Account Dataset Class Prefix**

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

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## **6.2. 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 5](#), ACAP Standard Options, 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.

## **7. 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.

### **7.1. 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](#).

## 7.2. Specific Attributes

These attributes are specific to the Email Account dataset class.

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#### 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

#### 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.

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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](#)], although it might also be used with IMAP [[IMAP4](#)] to specify a limit on the size of attachments to be downloaded. A value of "0" indicates no limit.

email-max-dsize = 1\*DIGIT

#### email.mailbox-prefix

This attribute contains a prefix required to access this account's IMAP folders. This is only useful when accessing messages via IMAP [[IMAP4](#)].

email-prefix = 1\*CHAR

#### 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.capability

This multivalued attribute contains a list of Sieve capability strings for extensions supported by the Sieve execution engine which processes the Sieve script contained in "email.sieve.script".

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Note that this attribute SHOULD NOT be modified except by the Sieve execution engine or its agent. Normally, this attribute is inherited from a site-specific dataset.

email-sieve-cap = 1\*CHAR

#### 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 [\[SIEVE\]](#).

Note that multiple Sieve scripts may be stored. The active script is always called "email.sieve.script", while additional scripts may be stored in names of the form "email.account.sieve.foo", where "foo" is the name of a non-active script.

email-sieve = 1\*UTF8-CHAR

#### email.sieve.runtime.errors

If supported by the Sieve implementation (see [section 8](#)), this attribute contains the count of runtime errors detected in the currently active Sieve script. This count SHOULD be cleared

when a new script is stored. It MAY be reset at other times, at the discretion of the server. Sieve is specified in [SIEVE].

email-sieve-runerr = 1\*DIGIT

email.sieve.runtime.warnings

If supported by the Sieve implementation (see [section 8](#)), this attribute contains the count of runtime warnings detected in the currently active Sieve script. This count SHOULD be cleared when a new script is stored. It MAY be reset at other times, at the discretion of the server. Sieve is specified in [SIEVE].

email-sieve-runwarn = 1\*DIGIT

email.sieve.runtime.errtxt

If supported by the Sieve implementation (see [section 8](#)), this attribute contains the text of runtime errors detected in the currently active Sieve script. The error text is formatted 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. This attribute SHOULD be cleared when a new script is stored. It MAY be reset at other times, at the discretion of the server. 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

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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 CRLF
non-text-sieve-att = sieve-att-line / sieve-att-off /
                    sieve-att-len / sieve-att-ext
text-sieve-att     = "text"      ":" SP 1*UTF8-CHAR
                    ;MAY use ":" or ";"
                    ;MUST NOT use CRLF
sieve-att-line     = "line"      ":" SP 1*DIGIT
sieve-att-off      = "offset"    ":" SP 1*DIGIT
sieve-att-len      = "length"    ":" SP 1*DIGIT
sieve-att-ext      = 1*UTF8-CHAR ":" SP 1*UTF8-CHAR
                    ;MUST NOT use ":" or ";"
```

email.sieve.runtime.warntxt

If supported by the Sieve implementation (see [section 8](#)), this



attribute contains the text of runtime warnings detected in the currently active Sieve script. The warning text is formatted into CRLF-separated lines, one line per warning, as specified for "email.sieve.runtime.errtxt". This attribute SHOULD be cleared when a new script is stored. It MAY be reset at other times, at the discretion of the server. Sieve is specified in [\[SIEVE\]](#).

email-sieve-warntxt = email-sieve-errtxt

email.sieve.syntax.errors

If supported by the Sieve implementation (see [section 8](#)), 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 (see [section 8](#)), 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 (see [section 8](#)), this attribute contains the text of syntax errors detected in the most recently stored Sieve script. The error text is formatted into CRLF-separated lines, one line per error, as specified for "email.sieve.runtime.errtxt". Sieve is specified in [\[SIEVE\]](#).

email-sieve-synerrtxt = email-sieve-errtxt

email.sieve.syntax.warntxt

If supported by the Sieve implementation (see [section 8](#)), this attribute contains the text of syntax warnings detected in the most recently stored Sieve script. The warning text is formatted into CRLF-separated lines, one line per warning, as specified for "email.sieve.runtime.errtxt". Sieve is specified in [\[SIEVE\]](#).

email-sieve-synwarntxt = email-sieve-errtxt

email.trash-folder



```

email.boring-headers      = ("received" "message" "x400")

entry
email.connection-type    = "direct"
email.personality        = "work"
email.server.imap        = "IMAP://jru@mail.bigcorp.com"
email.sieve.capability    = ("fileinto" "vacation" "envelope")
email.sieve.script        = {47}
                           if header :is "Sender"
                               "BigCheese@example.com"
                               {
                                   fileinto "Blatherings";
                               }

email.trash-folder        = "Trash"

```

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## **11. 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.

## **12. Acknowledgments**

Many thanks to the participants of the IETF ACAP working group for their help, comments, and suggestions.

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