Cyrus IMAP 3 and JMAP development

Please see: blogpost16-WikiSuite-will-now-support-all-major-Linux-distros. While ClearOS's mail stack is powered by Cyrus IMAP, Virtualmin's mail stack is with Dovecot, so we will focus on efforts there. This page is kept for posterity.

WikiSuite will add support for JMAP via a combination of contributions to Cyrus, Cypht and the IETF standardization process.

Cyrus 3.2 with JMAP support is planned for March 2020.

On July 14 and 15, 2018, WikiSuite team members were at the July 2018 JMAP IETF Hackathon in Montréal , which was a follow-up to the March 17 and 18, 2018 event, where WikiSuite team members joined Fastmail at the IETF 101 Hackathon to work on JMAP. -> 2018 XMPP, WebRTC and JMAP Hackathons in London

As of 2019, the reference implementation is on ClearOS, but the future production implementation will be using containers.

ClearOS's 7.x's mail server is Cyrus IMAP 2.x This page is to coordinate testing of upcoming Cyrus IMAP 3.x , which brings new features such as CalDAV, CardDAV and JMAP support.

Status

A lot of work is happening on the JMAP spec and associated code. We'll update cyrus.suite.wiki in ~~November or December 2017~~ ~~January~~ ~~February 2018~~ before the event to the latest developer snapshot.

Keep informed of JMAP-related work on Cyrus

- issues related to JMAP on Github
- Weekly updates on the Cyrus-devel Mailing list

Code

- https://github.com/cyrusimap/cyrus-imapd (Cyrus)
- https://gitlab.com/clearos/upstream/centos/cyrus-imapd/tree/clear7 (Cyrus 2.x app for ClearOS)
- https://gitlab.com/clearos/clearfoundation/app-smtp (Postfix app for ClearOS)

Commits

JMAP spec

Recent Commits to jmap:master
- EmailPush: -05
- EmailPush: identify the invalid value in invalidProperties
- EmailPush: define required filter conditions
- calendars: release v34
- calendars: clarify isOrigin is the same for all users of an account
- calendars: clarify invalidProperty error for exceeding limits
- calendars: update noSupportedScheduleMethods description
- calendars: define alert/notification ids for instance-only events
- calendars: clarify per-user defaults for availability of resources
- calendars: require invalidArguments for disallowed argument combinations

Recent Commits to cyrus-imapd:master
- Merge pull request #6601
- http_h2.c: don't send response trailers ahead of the body
- http_h2.c: send 1xx responses immediately and keep their headers valid
- http_h2.c: don't resend tunneled request data to the backend
- Merge pull request #6602
- http_digest.c: support Content-Digest and Unencoded-Digest
- Merge pull request #3858
- prevent an assert() in sqldb_rollback() if sqldb_begin() failed to ob...
- Merge pull request #6642
- imapd.c: proxy SUBSCRIBE, SETUSERGROUP, APPEND and COPY through the h...

What is new in Cyrus 3.x

- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.0.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.1.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.2.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.3.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.4.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.5.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.6.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.7.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.8.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.9.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.10.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.11.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.12.html
- https://www.cyrusimap.org/imap/download/release-notes/3.0/x/3.0.13.html

cyrus.suite.wiki

cyrus.suite.wiki is a shared development and testing server. Once the testing period is over, the server will be deleted so don't store any real data on this server. If you would like server access, please contact Marc Laporte

Urls

You can replace **test** with your login and follow the pattern below

User management

https://cyrus.suite.wiki:81/app/users (you need root access). And users need to login via IMAP for their account to be properly set up.

CalDAV

https://cyrus.suite.wiki/dav/calendars/user/test

CardDAV

https://cyrus.suite.wiki/dav/addressbooks/user/test/

RSS

https://cyrus.suite.wiki/rss/user/test

IMAP and SMTP

IMAP

port 143
server: cyrus.suite.wiki
username: login (not full email)

SMTP

port: 25?
server: cyrus.suite.wiki
username: login (not full email)
not working for me

IMAPS

SSL
port 993
server: cyrus.suite.wiki
username: login (not full email)
not working for me

SMTPS

SSL
port: 587
server: cyrus.suite.wiki
username: login (not full email)
not working for me

JMAP webmail

Test URLS, automatically logged in, as a different user:

- http://cyrus.suite.wiki:8080/ (test inbox provided by upstream)
- http://cyrus.suite.wiki:8080/user-nikola.html
- http://cyrus.suite.wiki:8080/user-test.html

Old non-working attempt

[+]

Confirmation that JMAP is working

```
[root@cyrus ~]# curl -X POST -H "Content-Type: application/json" -H "Accept: application/json"
--user test:wikisuite -d '[["getCalendars", {}, "#1"]]' http://localhost/jmap/
[["calendars",{"accountId":"test","state":"15","list":[{"id":"Default","x-
href":"/dav/calendars/user/test/Default","name":"personal","mayReadFreeBusy":true,"mayReadItem
s":true,"mayAddItems":true,"mayModifyItems":true,"mayRemoveItems":true,"mayRename":true,"mayDe
lete":true}],"notFound":null},"#1"]]
[root@cyrus ~]#
```

```
[root@cyrus ~]# curl -X POST -H "Content-Type: application/json" -H "Accept: application/json"
--user test:wikisuite -d '[[ "getMailboxes", {}, "#0" ]]' http://localhost/jmap/
[["mailboxes",{"accountId":"test","state":"23","notFound":null,"list":[{"id":"23b8b283-54b2-49
53-83b1-
dddfdf50d1ab","name":"Inbox","mustBeOnlyMailbox":false,"mayReadItems":true,"mayAddItems":true,
"mayRemoveItems":true,"mayCreateChild":true,"totalMessages":1,"unreadMessages":0,"totalThreads
":1,"unreadThreads":0,"parentId":null,"mayRename":false,"mayDelete":false,"role":"inbox","sort
Order":1},{"id":"5e8d9e35-76a6-4a54-9bb4-
e8625f908670","name":"Drafts","mustBeOnlyMailbox":false,"mayReadItems":true,"mayAddItems":true
,"mayRemoveItems":true,"mayCreateChild":true,"totalMessages":1,"unreadMessages":1,"totalThread
s":1,"unreadThreads":0,"parentId":null,"mayRename":true,"mayDelete":true,"role":null,"sortOrde
r":10},{"id":"3334d6fb-
```

```
f621-4b7b-9634-93eb193023d2","name":"Trash","mustBeOnlyMailbox":false,"mayReadItems":true,"may
AddItems":true,"mayRemoveItems":true,"mayCreateChild":true,"totalMessages":0,"unreadMessages":
0,"totalThreads":0,"unreadThreads":0,"parentId":null,"mayRename":true,"mayDelete":true,"role":
null,"sortOrder":10}]},"#0"]]
[root@cyrus ~]#
```


Notes for future documentation page

How to install

1. Set up MX records
2. install the eGloo release package: rpm -Uvh
   http://mirrors.egloo.ca/egloo/clearos/7.3/stable/x86_64/egloo-release-7-2.noarch.rpm
   - This will be simpler in the future
3. Then install the IMAP and SMTP apps:

   ```
   yum --enablerepo=egloo-clearos-devel install app-imap app-smtp
   ```

4. You will also need to do the following:
   - Create the default SSL certificate via the “System - Settings - Certificate Manager” app.
   - Create a user with IMAP and SMTP enabled.
   - Login via an IMAP client in order to create a mailbox for the user.

Optional: How to install Mail Forwarding on ClearOS

How to use

- The extra features (CalDAV, CardDAV and JMAP) run on port 80 and/or 443, so Cyrus IMAP interferes with web server. On this dev server, we use port 8080 for the JMAP client
- See URLs patterns above

Clients tested

DAVdroid

Automatic detection from email doesn't work but entering username, password and base URL works

Questions

- Is it possible to have a logout feature? (which would make it easier to test with different accounts)

Known bugs / limitations

Accounts created in ClearOS are not reliably setup for CalDAV and CardDAV.

Solution: login to the account via IMAP.

For developers

- https://github.com/cyrusimap/cyrus-imapd/blob/master/docsrc/imap/developer/jmap.rst
- https://www.cyrusimap.org/imap/developer/jmap.html
- https://medium.com/linagora-engineering/you-cant-do-imap-in-the-browser-can-you-208838b0ba17
- http://jmap.io/server.html
- Cyrus release process - switching to odd-even release cycle: "3.1.x releases will only ever be snapshots of the master branch, and should be considered for testing purposes and bleeding-edge features only. We will try to release these snapshots at coherent development points, but there will generally be large breaking changes occurring between releases in this series. At some point in the distant future, the next stable release series will be 3.2, which will aim to include the stabilised versions of the features developed/tested in the 3.1 releases."
- https://github.com/r00tat/cyrup