Requirements for a Email List Server for JLab

Mark Ito

June 4, 2020

GlueX-doc 4522-v2

1 History

The standard Mailman software at JLab has worked well for us and does meet most of our needs. But a few years ago, we wanted to start a software help forum and we thought that the mailman interface was too hard to search. For that application you want to be able to see if your question has been asked and answered before, à la StackOverflow. We looked at a JLab-managed Drupal site using the forum module, but that had problems handling pure email sending and receiving. We settled on Google Groups. It had great search, web-based reading and posting, and email-based sending and receiving. You could use your JLab email account for all transactions except posting on the website. You could easily dis-allow posting by non-members, and invite or add new members. Problem solved, we thought.

On another front, we had had our collaborator Matt Shepherd maintaining a HyperNews site at Indiana University. It was used for private groups, to discuss papers in preparation for publication. It had all the right features for us, but the system admin overhead was a an issue, especially setting up new topics. He asked about transitioning this function to GoogleGroups. Note that for the aforementioned software help list, we wanted to have all messages publicly readable on the Google Groups site. For these applications, the archive needed to be private. Fine. A private archive is no problem on Google Groups. The problem was that to read the archive on the web, you had to authenticate to Google, and so you needed to use a Google account. Some people objected to using their private Google account for work related business, plus there were objections on privacy grounds. We had a work around where we told people about the administrative google account (group owner account), including the password. This would allow reading, but this had its own problems, some obvious and some to be mentioned below. Also we started to notice conflicts in privilege settings with at universities using GSuite that would require action by the university's GSuite administrator to solve.

Lately, more of us would like to administer a private group, but that has turned out to be an expert-only operation. So we are looking for other solutions.

2 Requirements

In this section while discussing requirements, we will refer to our experiences to illustrate requirement-related strengths and weakness we have seen. We will refer the the Mailman system as MM and GoogleGroups as GG in what follows.

2.1 Email Access

Almost goes without saying, but users need to have the ability to receive messages and post messages using email and email only. This is the tradition in the field.

See the comment about Drupal in the history section above.

2.2 Archive

All products have an archive. Should be able to choose between public (readable by anyone) and private (authentication needed to read) archives.

2.3 Web Access

Not only should the archives be accessible via a web browser (which all products support), but there should be an ability to post new messages or reply to old ones via the web.

2.4 Subscriber Community

People from outside JLab need to be able to participate fully as subscribers and preferably as managers. One can assume subscribers have JLab CUE accounts for functions where authentication is necessary.

2.5 Search/Browse

Need facility so that

- past conversions only vaguely remembered can be found.

- folks with questions can search to see if the question has already been asked and answered.

- browsing through the history chronologically is supported.

GG is good for this, MM very poor.

2.6 Agile Deployment

When users want a new email list, they should be able to create one on-demand (with appropriate limits on creators) rather than waiting for CNI to act on a request. Same for deleting a list that was a bad idea.

GG is good for this, MM not.

2.7 Group Management

Management of the email list should be do-able by a team of users, not a single individual. Here we mean subscription approval, removal of members, visibility settings, etc. This avoids problems with vacations, travel, and job changes of managers.

2.8 Authentication

It would be ideal if JLab credentials could be used to authenticate in cases where authentication is necessary. This way a separate access-control management task is finessed.

2.9 File Attachments

It should be possible to add attachments to posted messages. The big use case here is attachment of PDF files. Cyber security is a concern here.

2.10 System Administration

Being users, we would like CNI to be able to handle system configuration, backups, and upgrades.

3 Product List

At this writing this list is pretty minimal. Other ideas should certainly need to be explored. For completeness I listed the products we are trying to get away from.

Mailman See the discussion above.

Google Groups See the discussion above.

HyperNews See the discussion above. This is old and probably does not have active support.

Drupal Forum See the discussion above.

Discourse "Civilized discussion for your community" `https://www.discourse.org/` Hall B is already using the free version. The Geant4 Collaboration has moved to Discourse after SLAC took down their HyperNews site for security reasons.

LISTSERV "Integrated Email List, Web and Database Communication", `http://www.lsoft.com/products/listserv.asp`

groups.io "Email Groups. Supercharged" `https://groups.io/`

Microsoft Teams

Slack No email interface of which I am aware. Probably not a real candidate for that reason.