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## Requirements for Improvements to the IETF Email List Archiving, Web-Based Browsing, and Search Tool

### Abstract

The web-based IETF email archive search tool based on the requirements captured in RFC 6778 was deployed in January 2014. This memo captures the requirements for a set of improvements that have been identified during its initial years of community use.

### Status of This Memo

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## 1. Introduction

The IETF email archive search tool, as specified in [RFC6778]) and available at [mailarch], has been in use for nearly two years. During that time, there have been repeated requests for several improvements. This memo captures the requirements for a concerted development effort to provide those improvements.

## 2. List Search and Archive Tool Improvement Requirements

## 2.1. Viewing by Thread

Currently, when the "Group by Thread" button is selected, the resulting list of messages is flat. It is very hard to tell where a thread starts and stops. This flat view interacts badly with sorting (triggered by clicking on the column headers), leading to results that are confusing and sometimes incorrect.

This effort will:

- o Modify the message list display, when grouped by thread, to show each thread hierarchically.
- o Modify the sort performed by the clicking on the column headers to sort the overall list first by the parameters in the first message in the thread, and then sort within the thread (ensuring the thread grouping doesn't change based on these sorts). When viewing threads sorted this way, the hierarchy will be flattened, but the thread boundaries will remain visibly distinct.

## 2.2. Navigation from the Message List View

This effort will add navigation to the message list view, whether viewing flat search results or viewing by thread, making it simple to:

- o Navigate to the previous/next message by date in the set of listed messages.
- o Navigate to the previous/next message in a thread, to the first message in a thread, and to the previous/next thread displayed.
- o Navigate to any References or Replies (displayed as Follow-Ups in MHonArc) for the currently selected message. These are derived from the References header field in the displayed message, and the In-Reply-To header field or the last value in the References header field of all other messages in the archive).

The UI will make it possible to hide these navigation elements.

## 2.3. Navigation from a Single Message

Currently, when viewing a single message, the only option for navigating to related messages is to return to the message list view (either by date or by thread). This is implemented with a new search based only on the details present in the message itself. No information about any search that led to the message is retained.

This effort will:

- o Add navigation to the single message view, enabling transition to previous/next in list and previous/next in thread.
- o Add navigation enabling transition to previous/next in search, if the message page being displayed was arrived at by navigating from the message list view of a search result.
- o Add navigation to any References or Replies (displayed as Follow-Ups in MHonArc). These are derived from the References header field in the displayed message, and the In-Reply-To header field or the last value in the References header field of all other messages in the archive.
- o Make it possible to hide these navigation elements.

## 2.4. Message List UI

It is not sufficiently obvious that the message list panel can be resized. The current handle is not visually distinct enough to signal the capability to the user, leaving many users believing they are restricted to the very short default list, even when viewing on large monitors.

Additionally, there is a flaw in the code that fetches additional messages when scrolling to the bottom of what's currently displayed. If the message window is large enough that the default number of results does not fill it, no scrollbar appears, and scrolling to the bottom does not fetch additional results.

The filter by list and filter by from sections to the left of the message list have no values in many circumstances, but it is not obvious why they are missing. One notable condition is when the search result is very large -- computing the values to put in these filters becomes prohibitively expensive. Without foreknowledge of the decisions captured in the code, the behavior seems arbitrary and unintuitive.

The current view truncates fields, leaving trailing ellipses, when it doesn't need to. This leaves space underutilized on large displays and may make selection (particularly of long email addresses in the filters) much more difficult than it should be. On small displays, the column of filters dominates the display, leaving only a small amount of space for the actual message content.

The current view requires the user to select each message in the message list to get the URI to that message. This makes it difficult to open several messages in different windows, or to build a list of URIs for use in a message or other applications. It is also not obvious that double-clicking a row in the list will open the message in a separate window.

This effort will:

- o Make the ability to resize the panels on the message list display easier to find.
- o Account for the size of the message list panel when choosing how many messages to fetch, filling the panel whenever there are enough results to do so.
- o Provide a message explaining any condition leading to filter values not being populated (such as "Refine search to enable 'From' filtering").

- o Allow subjects to fill the column on large displays. Show fully expanded list and email addresses in the pop-ups for the filters.
- o Provide a link on each row of the list to the URL for that row's message.
- o Add an export type that produces a file containing a list of URIs to each message in the list.
- o Add a hint to the UI that double-clicking on a row in the list will open a single-message view of the associated message in a separate view.

## 2.5. Improve Support for Mobile Devices

The current view becomes difficult to use on small displays, particularly phone displays in portrait mode. This effort will:

- o Add a responsive interface, presenting a useful interface on both small and large displays.

## 2.6. Improve Use of Display Space

The current view underutilizes the available display space. This effort will:

- o Make the message content the primary point of each view.
- o Reduce the unused space on the display.
- o Remove the filter column responsively when the display width is small.

## 2.7. Use without JavaScript

The current web-based archive search tool requires JavaScript to function. This effort will extend the tool to allow users that have disabled JavaScript in their browser to retrieve and navigate through search results using the message list and single message views.

This effort will not attempt to preserve all of the functionality provided with JavaScript enabled. In particular, when running with JavaScript disabled, these features will not be available:

- o Resizing of the message list panels.
- o Dynamically filtering by time, list, or from. (The filter column will not appear).

## 2.8. Administration

This project will:

- o Add a link from the message view to the admin page for the message when logged in as an administrator.
- o Add correction of the appropriate thread indices to the handling of administrative imports of messages.
- o Implement a redirection handler mapping legacy archive URLs to the appropriate mailarch page.
- o Make the underlying template consistent across all views presented by the tool. In particular, ensure that the correct logo as designated by the IETF Administrative Oversight Committee (IAOC) appears consistently on all views.

## 3. Security Considerations

The requirements for improvement to the mailarch tool captured in this document do not introduce any exceptional security considerations. They add additional navigation points, and the implementers should consider the impact of rapid navigation using these new mechanisms (see the security considerations of [RFC6778]).

## 4. References

### 4.1. Normative References

[RFC6778] Sparks, R., "Requirements for Archiving IETF Email Lists and for Providing Web-Based Browsing and Searching", RFC 6778, DOI 10.17487/RFC6778, October 2012, <<http://www.rfc-editor.org/info/rfc6778>>.

### 4.2. Informative References

[mailarch] IETF, "Mail Archive", <<https://mailarchive.ietf.org>>.

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