           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

   This document is not an Internet Standards Track specification; it is
   published for informational purposes.

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   (IETF). It represents the consensus of the IETF community. It has
   received public review and has been approved for publication by the
   Internet Engineering Steering Group (IESG). Not all documents
   approved by the IESG are a candidate for any level of Internet
   Standard; see Section 2 of RFC 5741.

   Information about the current status of this document, any errata,
   and how to provide feedback on it may be obtained at
   http://www.rfc-editor.org/info/rfc7842.

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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>.

Acknowledgments

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