RMAILER: A Remote Ad Hoc Mailing list Expander

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The ROSErver/PRMBS BBS system supports a remote ad hoc mailing list protocol known as RMAIL (Remote MAILer). ROSE/RMAILER provides RMAIL support for other BBS systems operating under MS-DOS".

1. Background

The RMAIL protocol provides a mechanism similar to National Traffic System "book" traffic for the Amateur Radio store-and-forward BBS network. Both protocols are designed for situations where identical messages are sent to multiple recipients. A single copy of such a message, including addressing information for the intended recipients, will traverse the network to a point closer to final delivery. Upon reaching that point the single message will expand into multiple messages, one for each recipient.

Such protocols result in clearly measurable improvements in channel utilization. This improvement, for n recipients, approaches $(n\text{-}1)$ times the single recipient message size.

While other approaches to mailing lists are centralized and depend 'upon external maintenance of such lists, RMAIL operates upon a list defined during message origination and carried within the message. RMAIL, therefore, imposes no additional clerical burdens upon packet BBS system operators.

Centralized mailing list servers can take advantage of the ad hoc mailing lists provided by RMAILer if they are "RMAIL aware." (At this time the only "RMAIL aware" centralized distribution server is ROSEDIST, an integral part of the **ROSErver/PRMBS** PBBS package by Brian Riley, **KA2BQE.**)

2. Required Message Elements

Two elements must be present for successful processing of a message by RMAILer. First, the message must be addressed to **RMAIL@<bbs_name>,** where **<bbs_name>** is the **callsign** or hierarchical name of the target BBS for RMAILer processing (message expansion). Second, the message must contain an RFC-822 style "To:" line of the form:

To: **RMAIL@<bbs_name>,** *call@bbs1, call@bbs2,...,calln@bbsn*

where **<bbs_name>** is again the **callsign** or hierarchical name of the target BBS for **RMAILer** processing, and *callx@bbsx* is replaced by the PBBS address of each individual recipient. (There is a 512 characters for the "To:" line; see "Current Limits and Future Plans" for discussion.)

These elements are automatically created and properly included in RMAIL messages originated on PBBS systems with integral RMAIL support. (Currently this feature is only available on **ROSErver/PRMBS** PBBSs.) Users of other PBBSs wishing to create RMAIL messages will need to manually create the required "To:" line as the **first** line of the message. Even when this results in multiple RFC-822 style "To:" lines RMAILer will find the data and successfully expand the message.

3. History

Several meetings of PBBS and packet network system operators (sysops) in the CT/NJ/NY region were held this **summer.** (Further details of these meetings appear elsewhere in these proceedings.) As a result of these meetings, all PBBS sysops will be exchanging information on a regular basis. While discussing the distribution of these information bulletins the advantages of **RMAIL** became apparent.

Understandably, sysops become "attached" to their program-of-choice, and are unlikely to change just to be able to utilize RMAIL. However, most PBBS software supports a standard format for file-based Import/Export of messages. In addition, most can also be configured to automatically run external

programs. Many "servers" already exist which provide enhanced capabilities to PBBSs by utilizing these techniques. Those non-ROSErver/PRMBS sysops in attendance expressed a desire for a similar server to handle RMAIL expansion.

This software, written by Frank Warren, KB4CYC, is the result.

4. Design and Operation

RMAILER is designed to be run as a server program from the event cycle (or equivalent) of the BBS. Messages to be processed by the program must first be exported to a file. Next RMAILer is run, creating or appending to an output file containing the expanded messages. Then the BBS imports the file containing these messages. Finally, the output file should be deleted to prevent future message duplication

File names used by RMAILer may be specified on the command line. If not, RMAILER will look to process a file named RMAILER.EXP and append its output to RMAILER.IMP.

5. Current Limits and Future Plans

At this time the "To:" line is limited in length to 512 characters and RFC-822 style continuation lines are not supported. Plans are to address this by supporting RFC-822 continuation lines in a future release.

A companion centralized distribution list server, based upon the ROSErver/PRMBS ROSEDIST program, is contemplated.

6. Distribution

ROSE/RMAILER is available at no charge for non-commercial use within the Amateur Radio, MARS, RACES, and CAP services.

RMAILER is distributed as a self-extracting LHarc archive RMAILER.COM containing files RMAILER.EXE (the executable) and RMAILER.MAN (a UNIX™ style "manual page").

ROSE/RMAILER can be downloaded from CompuServe™ HamNet Forum, the KB7UV Landline ROSErver/PRMBS (see below), "HIRAM" (the ARRL multi-user

telephone BBS), and other telephone BBSs.

Those desiring RMAILer on MS–DOS magnetic media should send pre-formatted diskettes and return postage to the Radio Amateur Telecommunications Society (see below).

Requests for the code via the Internet should 'be directed to:
kb4cyc@kb2ear.ampr.org

Frank Warren, the program's author, may be contacted via packet as:
kb4cyc@kb4cyc.nj.usa

7. The RATS Open Systems Environment

ROSE/RMAILer is an element of the RATS Open Systems Environment (ROSE), a project of the Ratio Amateur Telecommunications Society (RATS).

Other elements of ROSE include the ROSE X.25 Packet Switch by Tom Moulton, W2VY; the ROSE/OCS Online Callbook Server by Keith Sproul, WU2Z, and Mark Sproul, KB2ICI; ROSErver/PRMBS, the Packet Radio MailBox System by Brian Riley, KA2BQE; and ROSE/STS Station Traffic System by Frank Warren, KB4CYC.

Correspondence may be sent to:

    RATS
    PO Box 93
    Park Ridge, NJ 07656-0093

The RATS KB7UV Landline ROSErver/PRMBS supports data rates of 1200 to 9600 bps (V.32), and J-, X-, Y-, and Zmodem binary protocols. It can be reached at 718-956-7133. Callers should wait for the "login:" prompt (don't even press [ENTER]!) and follow the instructions provided.

7. Acknowledgments

ROSE/RMAILer would not be possible were it not for the pioneering RMAIL development included within the ROSErver/PRMBS Packet Radio MailBox System package by Brian Riley, KA2BQE. We also thank the members of the Radio Amateur Telecommunications Society for their continued support.