

Installation on HA System

The following instructions describe how to install KeyesMail on a second computer for High Availability or Disaster Recovery, using third party replication software.

___ Step 01 **Sign on as a Security Officer**

The following installation procedure will require that you have enough authority to be able to create subsystems, communication controllers and devices.

___ Step 02 **Install KeyesMail on the HA System**

You may copy or replicate the KeyesMail libraries from the Production Machine to a High Availability (HA) system, using any method that you prefer. Once this has been done, you must install KeyesMail on the HA system. This is done by running both the KMINSTALL and CRTKMLSBS commands. These commands will recreate some of the necessary objects to ensure that all the appropriate links between objects are in place.

It is recommended that you simply follow our "*How to Transfer to a different System*" instructions, found on our website, for doing the installation on the HA system.

___ Step 03 **Objects that you DO NOT want to Replicate**

It is important that your High Availability software DOES NOT replicate some of the data areas, that are located in the KeyesMail libraries. These data areas are specific to each computer, and may not function properly if replicated.

- The **KMLICENSE** data area located in KMLIB should not be replicated. This data area contains the license number for each specific computer and logical partition.
- The **KMDATAx** (where x can be a number from 1 to 8) data areas located in KMDATA should not be replicated. These data areas contain setup information for each mail connection that may be unique for each computer, such as IP addresses.
- The **KMSRVR** data area located in KMDATA should not be replicated. This contains server information that may be unique for each computer.

___ Step 04 Preventing "In Use" Error Messages

High Availability replication software will periodically retrieve a member list for each of the files that are being replicated. When this happens, the files will be temporarily locked. Because KeyesMail runs regularly, creating and sending mail, you can periodically get "In Use" errors - on the Production Machine. When this happens, you should attempt to answer the error messages with an "R" for Retry.

You can do 2 things to minimize the number of occurrences of these "In Use" errors.

1. Keep the mailboxes from exceeding 10,000 pieces of mail each.

When the replication software retrieves a member list, the number of members in the file will determine how long this takes. From experience we have determined that when you keep the mailboxes trimmed down below 10,000 entries, the system will work much better.

You should regularly use the purge command (PURGEKML or item 4 from KMMENU) to keep the mailboxes purged.

2. You should use the IBM CHGPF command to change each of the mail files to have a "Maximum file wait time" of 120 seconds.

Increasing the time to greater than 120 seconds is not necessary.

There are two different files in KMDATA library for each mailbox. The first file is named after the mailbox itself. The second file has the same name with "___A" appended to the end of the name to extend it to 10 characters long. As an example, if the mailbox were called "SALES" the second file for that mailbox would be called "SALES___A".

For the POSTMASTER mailbox the second file will be called POSTMASTE.A.

Testing or Activating KeyesMail on the HA System

If all the previous steps have been completed and the replication software has been running, you are now ready to switch over to the HA system for testing or for activating in any emergency.

___ Step 05 Enter a Temporary KeyesMail License number

The KeyesMail system can be replicated on any system, without a current license number. In order to use the software on the HA system, however, you will need to install a license number. Computer Keyes can supply you with temporary license numbers, for testing up to 3 times a year - or for actual emergencies, at no charge.

To obtain a Temporary license number, contact Computer Keyes. Be sure to supply the serial number of the HA system, the logical partition number that you will be running it in, and the Version number of KeyesMail. You can obtain the version number using the KMVERSION command. The KMLICENSE command described below will tell you what the serial number and logical partition numbers are.

1. Switch your current library to your KeyesMail Program library, usually called KMLIB.

Enter: CHGCURLIB KMLIB

2. Start up the program that will record your KM License.

Enter: KMLICENSE

3. Key your KM License number in the field provided, then press **Enter**.

___ Step 06 Starting KeyesMail on the HA System

Starting the KeyesMail connection will activate the entire system and start doing mail runs at the prescribed intervals.

1. Start item **21** Work with KeyesMail Connections from KMMENU.
2. Use option **1** to start the mail runs.
3. You can watch the how the system connects to the mail server then sends and receives mail, using **F5** (Refresh) periodically.

If the mail run is successful:

- Any mail that has a status of "Out Box" will be sent.
 - Any mail in POP3 mailboxes that you defined will be received.
 - The final message will read "Completed run at ...".
4. If you use the KMLOUTQ to automatically mail spooled files, you must use **F9** to start the KMLOUTQ process from the Work with KeyesMail Connections screen. The status of this process is shown at the top of the screen.

___ Step 07 **Starting Mail Servers**

If you use any of the KeyesMail servers, you can start them now.

1. Start item **22** Work with KeyesMail Servers from KMMENU.
2. Use option **1** to start the appropriate server(s).

Hint: The SMTP and POP3 servers are rarely used. They are only used if you have PC's that want to use KeyesMail as their SMTP and POP3 mail server. The HTTP server can be used by any PC with a Browser to access and control KeyesMail mailboxes.

End of HA Activation

This concludes the HA testing or activation. If you have not been able to complete these instructions, please contact Computer Keyes for assistance. We would be happy to help you.

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