Email Setup, Management & Troubleshooting

Version V6R1M0

IMPORTANT

This document is only applicable if you wish to configure CoolSpools Email to use IBM Mail Server Framework (MSF).

If you are preparing to configure CoolSpools Email to use the CoolSpools SMTP method as opposed to IBM Mail Server Framework(MSF), please refer to the 'CoolSpools Email user Guide V6R1' manual. http://www.ariadnesoftware.co.uk/docs/CoolSpools_Email_User_Guide_V6R1.pdf

Setting up Email on your System i (AS/400, iSeries)

CoolSpools Email creates email messages on your system i but relies on two IBM-supplied services to deliver those messages:

1. SMTP (Simple Mail Transport Protocol)

You need to have this service running on your AS/400, even if you are planning to route emails via another system, such as a Windows PC running MS Exchange.

If you wish to have emails routed via a mail server (e.g. MS Exchange), you need to make changes to your SMTP setup.

Note also that you are highly likely to need to make changes in the setup of your mail server package as well (see below).

Prompt the **CHGSMTPA** command using F4, and page up once. Set the SMTP attributes as shown below so that the system i knows it should route mail via the mail server:

```
--------------------------------------------------------------------------------
                       Change SMTP Attributes (CHGSMTPA)

Type choices, press Enter.

User ID delimiter  . . . . . . .    '?'            *SAME, *DFT, ?, =, ., &, £...
Mail router  . . . . . . . . . .    IP_or_name_of_mail_server



Coded character set identifier      00819          1-65533, *SAME, *DFT
Outgoing EBCDIC/ASCII table:
  Outgoing EBCDIC/ASCII table  .    *CCSID         Name, *SAME, *CCSID, *DFT
    Library  . . . . . . . . . .                   Name, *LIBL, *CURLIB
Incoming ASCII/EBCDIC table:
  Incoming ASCII/EBCDIC table  .    *CCSID         Name, *SAME, *CCSID, *DFT
    Library  . . . . . . . . . .                   Name, *LIBL, *CURLIB
Firewall . . . . . . . . . . . .    *YES           *SAME, *YES, *NO
Journal  . . . . . . . . . . . .    *YES           *SAME, *YES, *NO
Process all mail through MSF . .    *YES           *SAME, *YES, *NO
Percent routing character  . . .    *NO            *SAME, *YES, *NO
--------------------------------------------------------------------------------
```

i.e. specify:

- the IP address or name (as recognised by the AS/400) of the NT mail server on the **MAILROUTER** parameter.

- **FIREWALL(*YES)**. This is confusing as it doesn't mean you need a firewall: it tells the system i to send external mail to the mail router.

- **JOURNAL(*YES)**, to tell the system i to write diagnostics to the QZMF journal.

- **ALLMAILMSF(*YES),** so all mail messages are handled by MSF.

If you wish to have your system deliver emails itself by means of the native SMTP server rather than a mail router, specify CHGSMTPA ... MAILROUTER(*NONE) FIREWALL(*NO).

Note that the help text and messages sent by OS/400 suggest that if you specify CHGSMTPA ... MAILROUTER(*NONE) FIREWALL(*YES), the FIREWALL parameter is ignored. However, our experience suggests this causes SMTP routing errors and emails cannot be delivered. Use:

```
CHGSMTPA ... MAILROUTER(mail_router_name) FIREWALL(*YES)
```

or

```
CHGSMTPA ... MAILROUTER(*NONE) FIREWALL(*NO)
```

If you are not using a mail router, SMTP needs to be able to route emails to the appropriate destination, which requires DNS (Domain Name System) servers to be available to it. Take option 12 to display your system's host name and domain name and to see if you have a domain name server (DNS) defined. If you are not running your own DNS servers, you will need to have at least one other system defined here as a DNS server.

Also, your SMTP servers will not start if they cannot associate your system's host name with an IP address.

If SMTP is failing to start:

1. Run **CFGTCP** to display the TCP/IP menu. If you do not have a Domain Name Server

2. Now take option 10 from the CFGTCP menu to see if there is a host table entry for the host name and domain name you identified in step 1. If there is not, add one using

```
ADDTCPHTE
     INTNETADR(YOUR_IP_ADDRESS)
     HOSTNAME((HOST_NAME.DOMAIN_NAME))
```

To start SMTP on your AS/400, use the command **STRTCPSVR *SMTP**

To end SMTP on your AS/400, use the command **ENDTCPSVR *SMTP**

To have SMTP start automatically when the system is restarted, do

```
CHGSMTPA AUTOSTART(*YES).
```

After making changes to your SMTP setup, restart the SMTP servers so the changes take effect (use **ENDTCPSVR *SMTP**, wait 1 minute, then do **STRTCPSVR *SMTP**).

2. Mail Server Framework (MSF)

You need to have this service running on your AS/400. It takes the email messages created by CoolSpools Email and passes them to SMTP for processing.

To start MSF on your AS/400, use the command **STRMSF**

To end MSF on your AS/400, use the command **ENDMSF**

You may wish to modify the AS/400's system startup program (as referred to by the QSTRUPPGM system value - use command **DSPSYSVAL QSTRUPPGM** to identify this - so that MSF is started up automatically when the system is restarted.

Both SMTP and MSF must be active on your system, otherwise emails created by CoolSpools Email will not be delivered.

3. Other requirements:

a) Run `CHGPOPA MSGSPLIT(*NOMAX)`. This tells OS/400 not to split large attachments across multiple messages. If you are getting corrupt attachments, it could be because you do not have MSGSPLIT set to *NOMAX.

b) f you are using Communiqué V1 and are experiencing problems with MSF crashing, it could well be caused by the issue described in this IBM APAR: http://www-912.ibm.com/n_dir/nas4apar.NSF/c79815e083182fec862564c00079d117/f87ad7362ebf6be986256e9900544b17 Running `CHGATR OBJ('/tmp') ATR(*RSTDRNMUNL) VALUE(*NO)` eliminates this issue by telling OS/400 to allow temporary files created in the /tmp directory to be deleted by users other than the owner.

c) Consult your mail server administrator and make whatever changes are necessary within your mail server software (e.g. MS Exchange) to tell it to allow relaying of emails sent from the AS/400. Relaying is normally disallowed by default and must be enabled to allow the system i to send messages out via the router.

d) To analyze problems:

- make sure the system i can communicate with the mail server by PINGing (system i `PING` command) the IP address or name specified on the MAILROUTER parameter above.

- check QSYSOPR message queue for anything from an SMTP or MSF job (command `DSPMSG QSYSOPR`). Look for messages that mention job name QMSF or QTSMTPxxxx)

- check job logs of the QMSF jobs (command `WRKJOB QMSF`)

- check job logs of the various SMTP jobs(`WRKSBSJOB QSYSWRK`, look for jobs named QTSMTPxxxx)

- check QZMF journal (`DSPJRN QZMF`) (see procedure below for extracting data from the journal)

Tracking email delivery

We recommend you do the following to capture as much information as possible about email failures.

1. DSN

Specify an email address to receive Delivery Status Notification messages on the NFYDLVRY parameter of the CHGSMTPA command.

This email address will be notified whenever an email cannot be delivered. Make sure somebody monitors this email address for failure messages and takes appropriate action in response.

2. Create user profiles for the postmaster and nondelivery accounts by running:

```
CRTUSRPRF
    USRPRF(POSTMASTER)
    PASSWORD(*NONE)
    STATUS(*DISABLED)
```

```
    INLMNU(*SIGNOFF)
    TEXT('Email Postmaster')

CRTUSRPRF
    USRPRF(NONDELIVER)
    PASSWORD(*NONE)
    STATUS(*DISABLED)
    INLMNU(*SIGNOFF)
    TEXT('Email Nondelivery')
```

3. Identify your system's host name and domain name.

Run **CFGTCP** and take option 12. The fully qualified domain name is the host name followed by a period followed by the domain name.

In the commands below, replace host_name and domain_name with the values found here and replace system_name with the name of your system.

4. Add the postmaster and nondelivery accounts to the system distribution directory:

```
ADDDIRE
    USRID(POSTMSTR system_name)
    USRD('Postmaster')
    USER(POSTMASTER)
    SYSNAME(*LCL)
    MSFSRVLVL(*SYSMS)
    PREFADR(*SMTP)
    USRDFNFLD((SMTPAUSRID SMTP 'postmaster')
    (SMTPDMN SMTP 'host_name.domain_name'))

ADDDIRE
    USRID(NONDELIV system_name)
    USRD('Nondelivery')
    USER(NONDELIVER)
    SYSNAME(*LCL)
    MSFSRVLVL(*SYSMS)
    PREFADR(*SMTP)
    USRDFNFLD((SMTPAUSRID SMTP 'nondelivery') (SMTPDMN SMTP
'host_name.domain_name'))
```

5. Forwarding Mail To Another Address

If you would like to forward emails sent to these accounts to an actual email address, follow these steps.

a. (Once only) create two user-defined fields in the system distribution directory by running the following command:

```
CHGSYSDIRA
    USRDFNFLD((FORWARDING *NONE *ADD *ADDRESS 256)
              (FWDSRVLVL *NONE *ADD *MSFSRVLVL 1))
```

b) Set up forwarding to you@yourcompany.com as follows

```
CHGDIRE
    USRID(POSTMSTR system_name)
    USRDFNFLD((FORWARDING *NONE 'you@yourcompany.com))
    MSFSRVLVL(FWDSRVLVL *NONE)
```

```
     PREFADR(FORWARDING *NONE ATMIME)

CHGDIRE
     USRID(NONDELIV system_name)
     USRDFNFLD((FORWARDING *NONE 'you@yourcompany.com))
     MSFSRVLVL(FWDSRVLVL *NONE)
     PREFADR(FORWARDING *NONE ATMIME)
```

6. Extracting data from the SMTP journal

If you need additional support, please send us an extract from your SMTP journal. Use the following procedure to extract the data, which we will analyze for you.

```
a) DSPJRN
   JRN(QUSRSYS/QZMF)
   FROMTIME(from_date from_time)
   TOTIME(to_date to_time)
   JRNCDE((S)) ENTTYP(LG ER)
   OUTPUT(*OUTFILE)
   INCHIDENT(*YES)
   OUTFILFMT(*TYPE4)
   OUTFILE(QTEMP/CM_JRNDTA)
   ENTDTALEN(*VARLEN 1024 128)
```

   for the relevant from_date/from_time-to_date/to_time

```
b) CRTSAVF SAVF(QTEMP/TEMP)
```

```
c) SAVOBJ
   OBJ(CM_JRNDTA)
   LIB(QTEMP)
   DEV(*SAVF)
   SAVF(QTEMP/TEMP)
   TGTRLS(V5R3M0)
   DTACPR(*YES)
```

```
d) CPYTOSTMF
   FROMMBR('/qsys.lib/qtemp.lib/temp.file')
   TOSTMF(cm_jrndta.savf)
```

   e) Send us cm_jrndta.savf by email (from your PC)