ACO MONITOR™ Two-Way Messaging Set Up

Product No.: MON400

Notice:
Your system may require installation of IBM PTF's to ensure proper operation of the ACO products. Several important IBM PTF's are required to properly run certain SQL statements based on the installed version of IBM i. These PTF's are included in the latest version of the database group PTF for each respective release.

IBM i 7.2 required PTF's (not included in cumulative package)
None

IBM i 7.1 required PTF's (not included in cumulative package)
None

We STRONGLY recommend that you put in place a process to regularly obtain (and apply) the latest cumulative PTF, HIPER group PTF, and database group PTF packages to your IBM i (formerly AS/400) system(s).

> All DDL Systems products have earned IBM's "Ready for Power Systems" validation and are compatible with all currently supported releases of IBM i.

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Setting Up Two-Way Messaging

This section describes the steps required to configure ACO MONITOR™ to perform two-way messaging. If your system is properly configured, you can enter replies (or commands) to system/application events (monitored by ACO MONITOR™) from most two-way paging devices, properly equipped digital cellular phones, and e-mail clients (e.g. Outlook). **To use this feature, your Power System running IBM i (formerly AS/400) must be able to send and receive Internet e-mail.**

Prerequisites

Prior to performing the instructions below you should gather the following information about your system, network typology, and messaging device(s):

1. **The current password to the ACO user profile**. The default value is ACO.

2. **You should have previously configured your IBM i to use the Simple Mail Transport Protocol (SMTP)**. If your system is not currently configured to send e-mail, refer to the "ACO MONITOR™ service provider connections" document.

3. **The fully qualified domain name of your IBM i**. This identifies your system to the network (e.g. AS400A.DDLSYSTEMS.COM).

4. **The IP address of your company's Domain Name Server (DNS)**. The instructions below require adding an MX record to your DNS. If your DNS is managed by an ISP, you will need to contact your ISP and have them enter the appropriate MX record for your IBM i server. See step 2e for more information regarding the creation of an MX record.

5. **Your service provider must support two-way messaging**. Some service providers also require that you enroll your smartphone, tablet, or pager in their two-way messaging service; even though this service is provided as part of your basic rate plan. Please verify that your two-way device is properly configured with your service provider's two-way messaging service. Please contact your service provider for details.

If you have questions please call our *SupportLine* at **866-559-0800 option 2**. We will be happy to assist you!

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Please perform the following steps to configure your system for two-way messaging:

__1. Sign-on the IBM i with the **ACO** user profile and end the ACOPAGER subsystem (and associated monitors) by running the following command:

   GO ACO, option 1, then option 2

__2. The IBM i system must be able to recognize the domain name (the part of the e-mail address to the right of the @ sign) for the recipient as its own to receive mail**. If your system is already configured to receive internet mail, continue with step (3)**. Otherwise, continue with the steps below to configure your systems TCP/IP services:

  __ a. On a command line, type the following:

     CFGTCP then press **<Enter>**

  __ b. Select **option 1** (Work with TCP/IP interfaces). Record the IP address of your Ethernet or Token-Ring interface (ignore 127.0.0.1; this is a dummy address), and press **<F3>**.

  __ c. Select **option 12** (Work with TCP/IP domain name). Record the current values for the HOST and DOMAIN name fields. Together, these fields make up the value of your IBM i's fully qualified domain name (e.g. AS400A.DDLSYSTEMS.COM). Type ***LOCAL** for HOST NAME SEARCH PRIORITY. Finally, type at least one valid IP address for your Domain Name Server(s), and press **<Enter>**.

If there is nothing specified in the HOST NAME field, type your IBM i system name. If there is nothing specified in the DOMAIN NAME field, enter your companies domain name (the part of the e-mail address to the right of the @ sign).

  __ d. Select **option 10** (Work with TCP/IP host names). For the IP address recorded in Step B (Work with TCP/IP interfaces) make sure your IBM i's fully qualified domain name is specified. If the address already exists in the table, use **option 2** to add the domain name (e.g. AS400A.DDLSYSTEMS.COM) to the name(s) already associated with that address. If the address is not in the table, use **option 1** to add it. Press **<F3>** to return to the CFGTCP menu. At this point you have completed the basic set up for receiving mail.

  __ e. To complete this step you will probably need to contact your network administrator. In order for your IBM i system to receive mail your Domain Name Server (DNS) must be configured to forward "inbound" mail directly to your systems SMTP server. **Specifically, your network administrator needs to create an MX record for your IBM i system on the DNS server**. The MX record identifies your IBM i domain name (e.g. AS400A.DDLSYSTEMS.COM)

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and should route all mail directly to the IP address that was recorded in Step B.

▼ If your DNS is managed by an ISP, you will need to contact your ISP and have them enter the appropriate MX record for your IBM i's fully qualified domain name in their DNS.

Normally, your IBM i's fully qualified domain name is a combination of your system name and the domain name you assigned to your system in step 2c (above). For example, a system named AS400A with a domain name of DDLSYSTEMS.COM would produce a fully qualified domain name of AS400A.DDLSYSTEMS.COM. When adding an MX record to your DNS you would enter the fully qualified domain name and point it to your IBM i's Ethernet or Token-Ring interface IP address. For security purposes your network administrators may not want to expose the actual host name (e.g. AS400A) to the Internet. If this is the case, you can use an *alias* host name in conjunction with the domain name value (e.g. ACO.DDLSYSTEMS.COM). **If you do so, you must add this fully qualified domain name to the IBM i host table** (refer to step 2d for more information).

__3. Enter the commands below to end the TCP/IP SMTP application server and the mail server framework jobs:

ENDTCPSVR SERVER(*SMTP) then press **<Enter>**

ENDMSF then press **<Enter>**

__4. Enter the command below:

CALL PGM(ACOCFG2WAY) then press **<Enter>**

This will configure ACO MONITOR™ to send and receive e-mail on your system. A new user profile will be created (ACO2WAY) and the appropriate system distribution directory entries will be added.

__5. Enter the command below:

WRKDIRE then press **<Enter>**

Enter **option 2** to change the **ACO2WAY** entry. On the next screen, press **<F19>**. This displays a confirmation message at the bottom of the screen. Press **<Enter>** to display the following screen, type your *fully qualified domain name* (designated in step 2 above), and Press **<Enter>** twice to get back to the WRKDIRE panel.

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Display Users Granting Permission

```
                        Change Name for SMTP
                                               System:    DDLSC
 User ID/Address . . . . . :   ACO2WAY   DDLSC



 Type choices, press Enter.

   SMTP user ID  . . . . . .   ACO2WAY
   SMTP domain . . . . . . .   <enter your fully qualified domain name here>




   SMTP route  . . . . . . .




 F3=Exit    F12=Cancel
```

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___6.   Enter the command below to view the user permissions.

   DSPUSRPMN, then press **\<F9\>**

   Verify the information on the panel (see below):

Display Users Granting Permission

```
                    Display Users Granting Permission

 User            Permission Granted From
 ACO                  ACO2WAY




















                                                              Bottom
 Press Enter to continue.

 F3=Exit    F9=Display users granted permission    F12=Cancel
```

___7.   Enter the command below to start the TCP/IP SMTP application server and the mail
         server framework jobs:

   STRTCPSVR SERVER(*SMTP) then press **\<Enter\>**

   STRMSF then press **\<Enter\>**

___8.   Enter the command below to display the QSYSWRK subsystem:

   WRKACTJOB SBS(QSYSWRK) then press **\<Enter\>**

   In the display that results from the above command, verify that there are:
   - 3 jobs named QMSF running
   - A job named QTSMTPBRCL running
   - A job named QTSMTPBRSR running
   - A job named QTSMTPCLTD running
   - A job named QTSMTPSRVD running

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☑ If mail does not work after following the instructions above, you can do some preliminary troubleshooting by looking at the job logs for the QMSF, QTSMTPBRCL, QTSMTPBRSR, QTSMTPCLTD, and QTSMTPSRVD batch jobs. Most error messages that are found in those logs have a workable recovery procedure or lead to a PTF.

__9. Enter the command below to send a test message to your *local* Internet e-mail address:

> **SNDDST   TYPE(*LMSG) TOINTNET((***enter your local e-mail address***))**
> **DSTD('SMTP test message')**
> **LONGMSG('Test message from ACO MONITOR')**
> **USRID(ACO2WAY *enter your system name*)**

If your system is configured properly, the message will be sent on behalf of the ACO2WAY user profile. You should receive the above test message in your e-mail client (e.g. Outlook) usually within a few seconds.

▽ Your service provider must support two-way messaging. Some service providers also require that you enroll your smartphone, tablet, or pager in their two-way messaging service; even though this service is provided as part of your basic rate plan. If you have questions please contact your service provider.

__10. Reply to the e-mail message in your e-mail client. Click the "**Reply**" button, enter a valid reply value in the body of the e-mail message, and press the "**Send**" button. Wait a few seconds and run the following command on the IBM i.

> **WRKLNK '/QTCPTMM/MAIL/ACO2WAY/*'**

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If your system received the reply e-mail you should see .NOTNS files in the directory (see example below):

Work with Object Links Panel

```
                        Work with Object Links

Directory  . . . . :   /QTCPTMM/MAIL/ACO2WAY/BACKUP

Type options, press Enter.
  2=Edit   3=Copy   4=Remove   5=Display   7=Rename   8=Display attributes
  11=Change current directory ...

Opt   Object link          Type     Attribute    Text
      JWaaTkpx.NOTNS       STMF
      JWaa43Za.NOTNS       STMF
      JWabI2mH.NOTNS       STMF
      JWab0q0Y.NOTNS       STMF
      JWadHqde.NOTNS       STMF
      JWadPYgE.NOTNS       STMF
      JWaeLPxN.NOTNS       STMF
      JWafTUOL.NOTNS       STMF
      JWahetiU.NOTNS       STMF
                                                               More...
Parameters or command
===>
F3=Exit   F4=Prompt   F5=Refresh   F9=Retrieve   F12=Cancel   F17=Position to
F22=Display entire field          F23=More options
```

If you did not receive the above message, try entering this command a few more times - your mail server may take a few moments to send the mail to your IBM i.

▼ If your system is not receiving mail after completing the instructions above please call our *SupportLine* at **866-559-0800 option 2**. We will be happy to assist you!

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__11. If your system is receiving mail, continue by configuring ACO MONITOR™ to send monitored messages to your two-way device. In *Work with Pagers*, change **your individual id** (or the *DFT id) to use a **pager type 6** (see panel below). Once you have completed your entries, press **<Enter>** to advance to the next panel.

Work with Pagers Panel 2 (all panels not shown)

```
 ACD61002                 Work with Pagers         ACO            2/04/15
  Change                                                          14:32:48
 Type information, then Enter.

  Pager name/desc:  *DFT       * * * DEFAULT PAGER * * *
  Line description name. . . :  ACOPAGER   +             F4 for list
  Service phone number . . . :
  Message no./short text . . :
  Password . . . . . . . . . :
  PIN number . . . . . . . . :
  Response delay . . . . . . :                          0,1,2,5,10,15,20
  Pager type . . . . . . . . :  6 +                     F4 for list
  Immediate ID= prompt . . . :                          blank,Y
  Baud rate/data/parity/stop :                          F1 for details
  Priority on job queue. . . :  5                       1-9
  Numeric only message . . . :                          N=numeric only
  Prefix with system name. . :                          blank,N
  Prefix with queue name . . :                          blank,N
  Prefix with job name . . . :                          blank,N
  Prefix with user name. . . :                          blank,N
  Prefix with date/time. . . :                          blank,N

 F1=Help    F3=Exit    F4=Prompt    F12=Cancel    F21=System command
```

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___12. Enter the **e-mail address** for your device in the *Internet e-mail address* parameter and press **<Enter>**. Press **<F3>** to return to the *configuration* menu.

Work with Pagers Panel 2 (all panels not shown)

```
ACD61005                     Work with Pagers        ACO           2/04/15
 Change                                                             14:39:30
 Type information, then Enter.

  Maximum message length . . :                            1-240
  SNADS Recipient:
   Recipient user id . . . . :                            F4 for list
   Recipient address . . . . :
  Internet Recipient:
   Internet e-mail address . :  10digitphonenumber@vtext.com




   Recipient type. . . . . . :  *PRI                      *PRI
   Description . . . . . . . :  ACO MONITOR:
   Confirmation of delivery. :  *NO                       *NO, *YES
  Status . . . . . . . . . . :  *ON                       *ON, *OFF




 F1=Help    F3=Exit    F4=Prompt    F12=Cancel    F21=System command
```

Service Provider Information

Air Touch Paging	10digitpagernumber@airtouch.net
Arch Paging	10digitpagernumber@archwireless.net
AT&T	10digitpagernumber@mobile.att.net
Cellular One	10digitpagernumber@mobile.celloneusa.com
Cingular Wireless	10digitpagernumber@mobile.mycingular.net
GTE	10digitpagernumber@messagealert.com
MCI	10digitpagernumber@mci.com
MetroCall	10digitpagernumber@page.metrocall.com
Nextel	10digitpagernumber@messaging.nextel.com
PageMart	10digitpagernumber@airmessage.net
Skytel	7digitpagernumber@skytel.com
Sprint PCS	10digitpagernumber@messaging.sprintpcs.com
T-Mobile	10digitpagernumber@tmomail.net
US Cellular	10digitpagernumber@uscc.textmsg.com
Verizon Wireless	10digitpagernumber@vtext.com

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__13. Using the *Work with Message Queues* option, set the **ACO2WAY** message queue parameters as shown in the panel below. Confirm the settings by pressing **<Enter>**; you will be returned to the message queue list panel. Now, start the ACO MONITOR two-way Monitor by entering **option 10** next to the ACO2WAY entry on the list panel and press **<Enter>**. Press **<F5>** a few times until the ACO2WAY message queue displays a status of "**Started**".

Work with Pagers Panel 2 (all panels not shown)

```
 ACD00502                  Work with Message Queues    ACO           2/04/15
  Change                                                            14:48:49

  Type information, then Enter.

    Message queue. . . . . :   ACO2WAY         Name
      Library. . . . . . . :    QUSRSYS        Name
    Severity filter. . . . :                   0-99
    Automatic IPL startup. :   Y               Y,N
    Allow use of DSPMSG. . :   Y               Y,N
    Send job message . . . :   0               0,1,2
    Filter sysop messages. :   N               Y,N
    Create history . . . . :   Y               Y,N
    Turn paging On/Off . . :   *OFF            *ON,*OFF
    RePage Monitor On/Off. :   *OFF            *ON,*OFF
    Job Monitor On/Off . . :   *OFF            *ON,*OFF




  F1=Help     F3=Exit     F12=Cancel     F21=System command
```

__14. Press **<F3>** to return to the *configuration* menu.

__15. Select the *Work with Message Actions* option from the menu. Send a test message to QSYSOPR by entering **option 12** (on the Work with Message Actions list panel) next to a message id that notifies your two-way device. When you receive the message, enter a valid reply and press **<SEND>** on your two-way device.

Check the status of the message in QSYSOPR by using the DSPMSG command; press **<F10>** to update the message queue status periodically. The time it takes for the paging service to forward the reply to your network depends on many factors. However, if everything is working correctly, your iSeries (or AS/400) should receive the reply within 1 minute.

▼ If you have trouble replying to messages call our *SupportLine* at **866-559-0800 option 2** or send e-mail to **support@ddlsystems.com**.

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☑️ If your two-way reply does not work after following the instructions above, change the *DFT pager id to send a test message to your local "in-house" e-mail account (e.g. *me@mycompany.com*). Then, reply to this e-mail message and check to see if this reply is successful in answering the inquiry message in QSYSOPR. If so, two-way messaging is properly configured on your IBM i system.

Two-way messaging requires that your service provider include the original message along with the two-way reply message that is sent back to your IBM i. Most two-way services are configured to return the original message with the reply, however, some service providers do not. You can test this by sending a message to your two-way device from your e-mail client (e.g. Outlook); then, reply to this message. If your service includes the original message with the reply you can see this in the body of the message returned to your e-mail client.