Problems

Recovery from System Interrupts

System failures will not usually affect DeskLink. There are no message files to recover, and transactions are automatically recovered so there should not be any special recovery procedures -- merely restart the mailman job. Don’t forget to start your network services up first though (if you have them on your system).

The DeskLink gateway, however, does involve two message files, so in the event of a system crash, it might be necessary to recover one or both of the files (NETMAIL.NETMAIL.HPOFFICE and AREFIPC.MAILDB.HPOFFICE).

Any messages in transit when the system crashes will be re-transmitted later without loss of data.

Communications Line Failures

Communications line failures will not affect DeskLink, except that mail delivery will (obviously) be delayed until the link is brought back up. DeskLink automatically retries mail transmissions until successful. The mail delivery protocol that DeskLink uses (SMTP) minimizes incomplete mail messages, even in the event of physical link drops during mail transmission.

When Mail Can’t Be Delivered

Chances are, if you have more than one machine in your network with electronic mail, one of the first things you’ll try after installing DeskLink is to try and send a message to another system. This is in fact a good test, and in most cases easy to do. To do this, you need to take care of the following items though:

1) Know the name of the computer you want to send mail to.
2) Know the name of the mailbox on the computer which you want to send mail to.
3) Know that the other system has an SMTP compatible mail system, or at least has an SMTP gateway.
4) Be sure your DeskLink background job is running.

Once armed with this information, you need merely go into HPDesk and create and mail a message to a user on another system (via the NTMAIL gateway location).

In the event that a mail message truly cannot be delivered -- after DeskLink reaches the host and discovers that the recipient is not valid -- then the undeliverable message is returned to the original sender of the message. In some cases, undeliverable messages with invalid return addresses may get delivered to the mail system administrator.

On a system where the DeskLink HPDesk FSC gateway is running, any incoming mail for users (mailboxes) not known to DeskLink’s local database will be passed on into HPDesk for resolution. In these cases, mail which actually turns out to be undeliverable will get routed to the default user defined in HPDesk. Be sure and check for mail in that mailbox regularly.

On occasion, you may encounter other odd problems. If you send a mail message to another system and it doesn’t arrive within a few minutes, there are a few things you should check.

An important thing to check first is whether your system can communicate with the other system at all. The easiest way to do this on an MPE/iX system is to use the PING program in the NET.SYS group. Try to PING the other system from your HP3000. Likewise, on the other end, try to PING the HP3000. If this doesn’t succeed then you should check the following:

• Are the machines physically connected via a LAN? Any broken connections? Hardware failures? Is the other system up?

• Make sure that the other machine actually supports “SMTP” mail. (Unix’ sendmail does if configured correctly.)

• Is the mailer alive on the other system? If it’s a Unix system, is the sendmail daemon active “awaiting connections”? Sendmail will talk SMTP, but it may need to be configured, and it may need to be “launched” as a background process (usually this is done automatically in the system’s start-up script, but may not be if SMTP has never been used before).

• Is your HP3000 configured to enable “ethernet” in NMMGR? Some systems use “pure” ethernet framing on network packets, while the HP3000 by default uses strictly “802.3” format packets; the two are not compatible, but the HP3000 can simultaneously process both types if you set the “enable ethernet” flag in NMMGR.

• On some machines, TCP/IP checksums may be required. The default setting on the HP3000 is to disable checksums. Check the other items first though, as this is relatively rare. If you need to change it, the flag is in NMMGR in the NETXPORT.GPROT.TCP screen.

• If there is a router or bridge physically between the two machines you’re working with, be sure that it will allow TCP/IP traffic between the two hosts. Check for a “security firewall” where traffic may be restricted; be sure that at least TCP/IP traffic on port (or service number) “25” (twenty-five decimal) is allowed. This is the reserved port number for SMTP services.

• If there is a router and the machine you are trying to communicate with isn’t on the same logical subnet your HP3000 is, then you need to be sure you have a “gateway” configured in NMMGR on your HP3000 that tells the HP3000 how to “reach” that other subnet. In most cases, you will either define a simple gateway in NMMGR that defines the IP address of the router and the list of reachable network addresses on the “other side” of the router. If the router connects you to the Internet, or any very large and dynamic network, then you probably want to define a “default gateway” in NMMGR which designates that router as the route to take for ANY network your HP3000 doesn’t otherwise know how to get to. On MPE/iX systems running MPE/iX 4.0 or later, this is done by merely entering a value of “@” in the reachable networks field on the gateway screen. For MPE/iX versions before 4.0 and MPE/V systems, there is a “default gateway” kludge you can get from HP’s response center or from 3k tech support that will give you the same functionality.

• If you have telnet available on the other system, a simple means of testing that both your HP3000 is reachable and that the DeskLink software is responding correctly is to telnet to port 25 on the HP3000. You should receive a NetMail/3000 banner line (merely type QUIT to close the link). If you can’t reach the host then you may have a network problem. If you get a message that the connection was “refused” (as opposed to unable to connect to host) then you either do not have the DeskLink background job running (do a :SHOWJOB JOB=@J to make sure it’s running) or the network software on your HP3000 is not set up correctly.

• Did you fully qualify the name of the other system? You should be aware that when the HP3000 tries to “find” another machine by name, it automatically assumes that it’s domain and organization names match those of the HP3000 (as configured in NMMGR) if not specified. For instance, if you try to send mail to “user@systemx”, and your HP3000’s node name is “hp.admin.corp” then the HP3000 will automatically assume that “systemx” is actually “systemx.admin.corp”. If this is NOT the case, then you need to either fully qualify the system name when you send it mail, or you need to enter an “alias” for that machine in either NMMGR’s network directory or in the known host screen in the NetMaint program.

• Another problem area might be nameservers. If the machine you send mail to is not an HP3000 or HP9000 then it may not support HP’s “PROBE” protocol; this is the protocol HP uses

to attempt to find a machine by name on your network. If the machine doesn't support "PROBE", then the HP3000 needs to be able to look up the machine's name and get it's IP address in another way. There are three other ways to accomplish this, and you must have set up at least one of these in order for NetMail/3000 to be able to deliver mail to it. We'll list the alternatives here in order of flexibility/preference:

1) Configure your HP3000 to query a nameserver (if you have one available of course).
2) Enter the name and IP address of the system in NMMGR's network directory.
3) Enter the name and IP address of the system in netmaint's known-hosts screen.

Each of these is discussed elsewhere in this manual if you need details. What you will see if the HP3000 can't figure out the address for a given machine are that mailbox addresses either won't be accepted to be sent, or messages will be returned as undeliverable after a short delay. Verify that the HP3000 can find the other system by using the GET or TCPACCESS programs provided with DeskLink. An "unknown host" error indicates this problem.