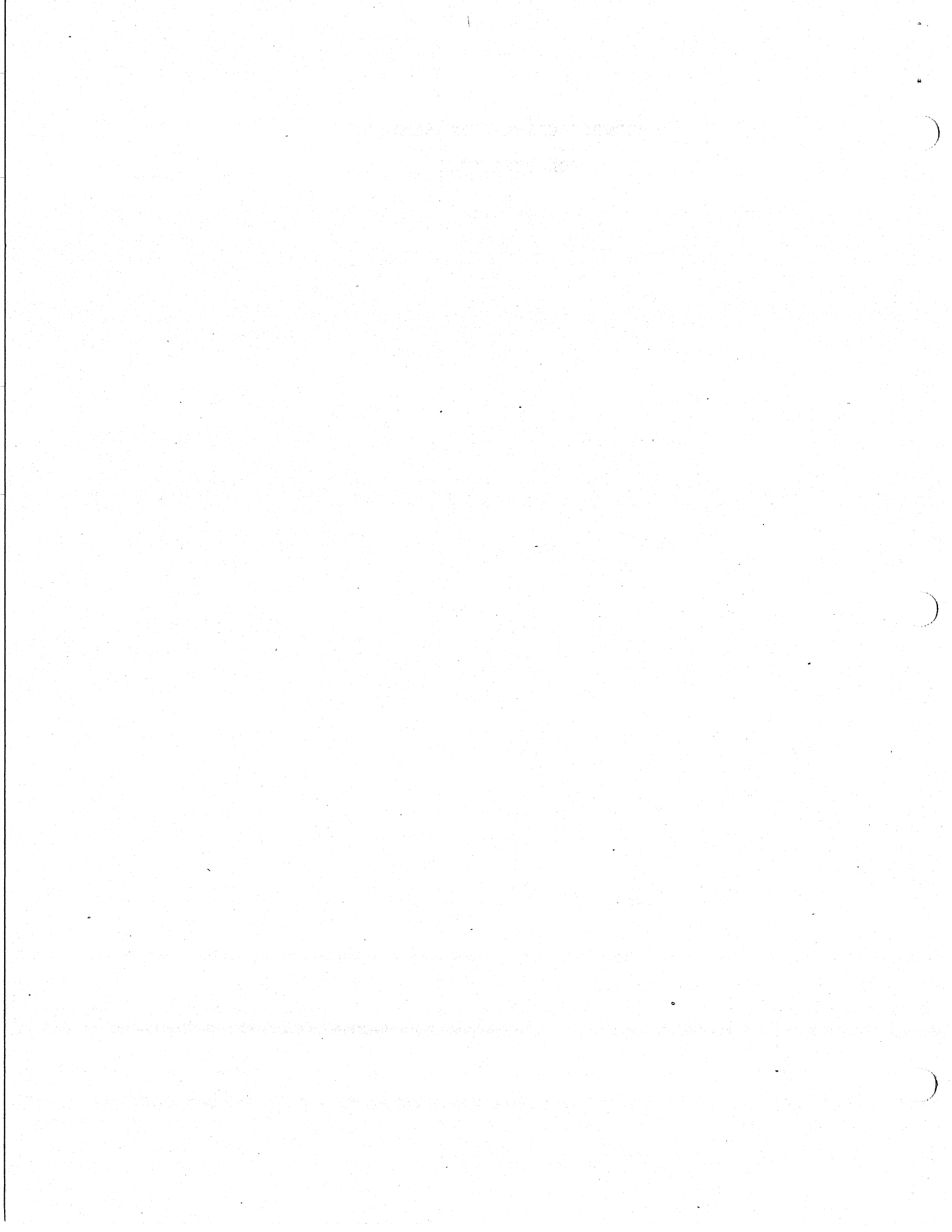


**NETWORK CLIENT INFORMATION**

**FOR PCSA V2.0**



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 \* PCSA V2.0 Network Client Problems \*  
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01818 Netbios returns error when posting a receive datagram

00869 Redirector causes lost keystrokes

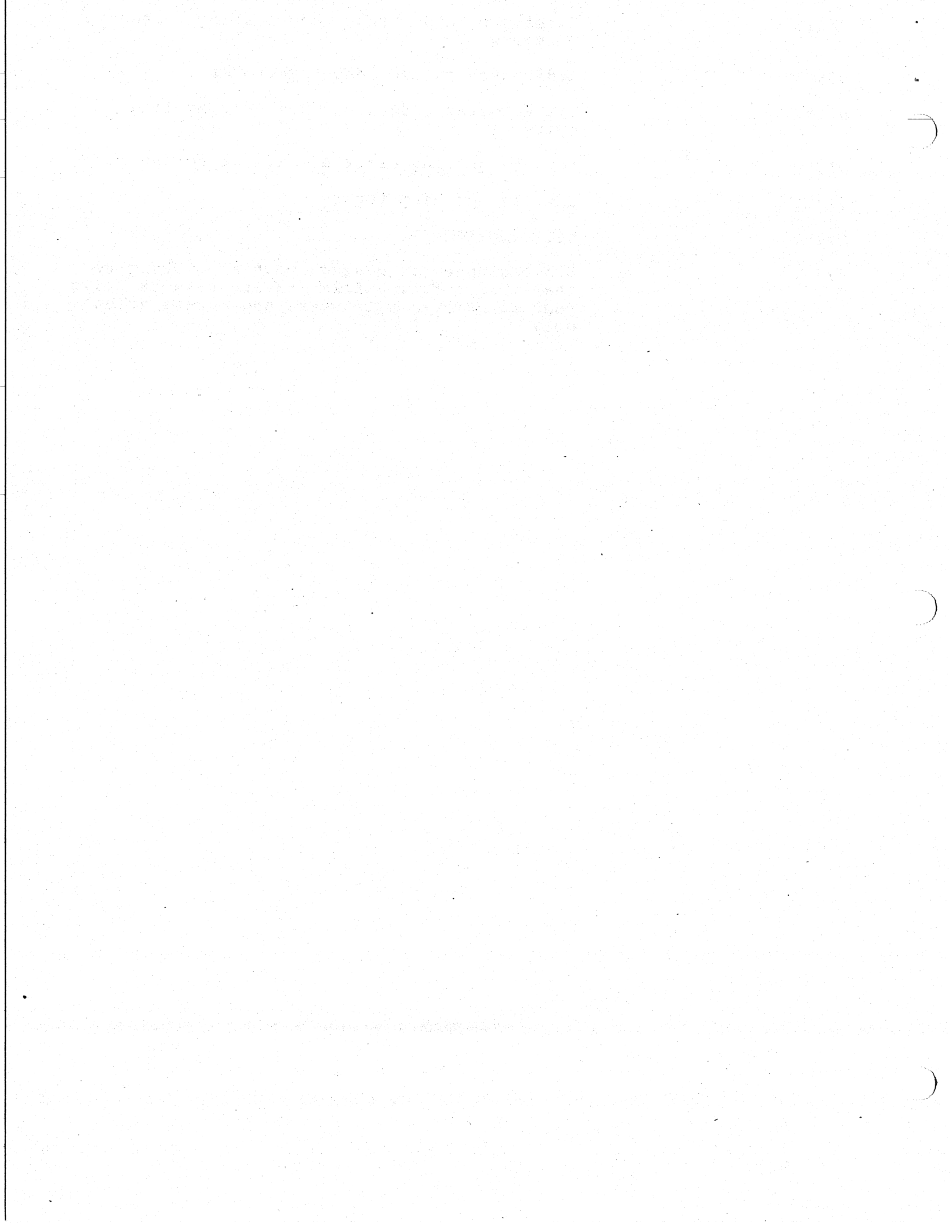
00937 USE Requires spaces between command-line switches

01550 net use parsing error message is confusing

01711 invalid net help topics

00187 Net printing fix

01537 Misleading error message when attempting to read a file from a file service network drive that is granted with write and create access only



SPR #: 1763  
Product: Network Client  
Class: Bug

PROBLEM: NET DISK SERVICES service - Field lengths

The above command prints the following fields as 8 bit values, but they are actually 16 bit values:

Service rating  
Maximum Connections

Valid service ratings are 0-65535

Valid Maximum Connections are 0-65535. If a service is mounted with /CONN=NO limit then MAX CONNECTIONS is stored as 65535, but displays via NET DISK SERVICES as 255.

SPR #: 1776  
Product: Network Client  
Class: Bug

PROBLEM: MSNET.INI not found when on a paused drive

This turned up in an automated test: if you are sitting on a network drive and pause disk redirs, NET can no longer find MSNET.INI (or so it says).

Looks like it's checking the current dir and giving up before checking the path.



SPR #: 1782  
Product: Network Client  
Class: Bug

PROBLEM: NET CREATE /ALLOC minimum values

The minimum allocations currently implemented for 10MB, 20MB and 32MB disks via the /ALLOC qualifier are incorrect. They should be as follows:

If /SIZE=10MB the min for /ALLOC=16344  
If /SIZE=20MB the min for /ALLOC=16344  
If /SIZE=32MB the min for /ALLOC=16344

The reason for this is that the FAT entry size must be 16 bits for 10MB disks and larger. The formula used for DOS to determine whether to use 16 bit FATS vs. 12 bit FATS is as follows:

If  $(\text{Total disk sectors}) / (\text{cluster size}) \leq 4085$  then use 12 bit FATS, otherwise use 16 bit FATS.

For 10MB disks and larger the cluster size is 4, therefore the minimum allocation to force 16 bit FATS is  $4 * 4086 = 16344$ .

**ACTION/REMARKS:**

Making this change affects code as well as documentation for both PCSA CREATE DISK and NET CREATE. For V2.0 we can handle this in a release note.

SPR #: 1805  
Product: Network Client  
Class: Bug

PROBLEM: Redirection fails even with increased max links

I increased the max links value in the Network Switches menu in Configuration Aide from 4 to 5 and rebuilt the keydisk. (The maximum connections value remained at the default of 10). On boot-up, the redirector said:

Too many redirections

as it was trying to make the 5th connection to the 5th server.

The autoexec.bat that was generated contains an ncp command to set the maximum DECnet links to 5, but the net start rdr command has no switches at all. I'm told that the redirector must be separately told about the change in max links. (Current documentation doesn't mention it; 1.1 documentation says there is both a links and a server switch in the redirector). If in fact the redirector is expected to know about the max links value from the ncp setting, then the Configuration Aide is not at fault and this spr should be moved to networks.

SPR #: 1844  
Product: Network Client  
Class: Bug

PROBLEM: Int24 fails on LAD retried write protect errors

The following occurs when the user attempts to copy a file to a read-only drive and responds to the int24 handler with a RETRY:

( whereas drive E: is the read-only LAD )

```
E:>\copy a:config.sys foo.bar
```

```
Write protect error writing drive E
Abort, Retry, Fail? r
      1 File(s) copied
```

The abort and fail response work correctly.

Immediately executing another media related command (such as DIR or ATTRIB) succeeds, but is followed by a second int24 write protect error.

On Compaq and IBM clients (PC-DOS), successive retries yield the following message:

```
Invalid disk change error writing drive E
Please insert disk [random characters]
Abort, Retry, Fail?
```

On VAXmates (MS-DOS) the write protect message appears until the maximum number of retries is reached (16). This is normal.

SPR #: 1852  
Product: Network Client  
Class: Bug  
H/W: ECO DEPCA ONLY

PROBLEM: MOP Clear counters on DEPCA ECO board doesn't work

The ECO DEPCA (V2.0 of the ROMS) will not let a client application (NCP) clear the datalink counters.

SPR #: 1855  
Product: Network Client  
Class: Bug  
H/W: Compaq

**PROBLEM:** remote boot does not work with Compaq dos 3.30

When attempting to remote boot a compaq dos 3.30 system, the system either hangs, or produces an "non-system disk" error.

The code placed in the boot sector by COMPAQ DOS V3.31 assumes that a certain area within the boot sector will always be initialized to zero.

**ACTION/REMARKS:**

It turns out in the case of LAD disks, this area is initialized with the volume ID from the BDS which is non-zero. The following workaround exists:

Instead of formatting the network key disk via FORMAT /S use DISKCOPY to copy the system to the network key diskette. For example, assume you are connected to the network key disk on drive F:, do the following

```
FORMAT A: /S  
DISKCOPY A: F:
```

**NOTE:** If the network key disk is a 360KB disk, DISKCOPY a 360KB floppy disk the system on it, if the network key disk is a 1.2MB disk DISKCOPY a 1.2MB floppy with the system on it.

SPR #: 1856  
Product: Network Client  
Class: Bug  
H/W: IBM XT

**PROBLEM:** format a: fails if the system is remote booted

When using remote boot with XT class machine, format a: fails with "unusable disk" error. The following scenarios have been used to verify the problem:

- 1) IBM XT with 360kb drive, network keydisk of size 1.2mb
  - the system is booted and running. Only problem is that if you attempt to do a format a:, the system will produce a "unusable disk" error. Subsequent access to a: fails with "general read error on a"
- 2) IBM XT with 360kb drive, network keydisk of size 360kb
  - the system is booted and running. It also enter the "unusable disk" error while using format a:. But it is able to successfully access a: as long as not using "format".
- 3) COMPAQ DESKPRO with 2 360kb drives, network keydisk of 360kb
  - same as case 2, but both of the 360kb drives are affected.

The work around is to specify /4 when formatting. ("format drv: /4 [/s]") Dos seems to think that the drives are acturally 1.2mb. The /4 option will cause it to treat it as a low density (although it is.) The work aorund have been verified to handle the problem in the above three scenarios.

SPR #: 1606  
Product: Network Client  
Class: Bug  
H/W: VaxMate B

**PROBLEM: Access denied**

There appears to be a DNP related problem which can occur using LDU.EXE. The following sequence will always create the problem.

- (1) Use LDU to temporarily create a virtual circuit to object 0 PCSA\_RMI using a command like NET FILE SERVICES.
- (2) On another PC login to the server, do a "'show sys'" and stop the server process (servernnn).
- (3) Reissue the command (1) using a bad password.
- (4) Reissue the command (1) using a good password. It will fail.

The command will repeatably fail for that server until it succeeds once, which may take 30 or more tries, whereupon it will continue to work.

Session returns a 0x8D error indicating invalid access information. The same command for other servers (in the same or different clusters) will work.

While USE.EXE can create a virtual circuit to the same node once this problem appears, it uses a different object.

SPR #: 1633  
Product: Network Client  
Class: Bug  
H/W: All workstations

**PROBLEM:** NCP returns non-zero return code on successful operations

NCP returns a return code of 1 (one) regardless of the success/failure of an operation.

The problem occurs when exiting NCP's menu (interactive) mode.



SPR #: 1712  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: net help syntax

NET HELP specifies its syntax as:

NET HELP topic [ subtopic [ ... ] ] ]

However, HELP does not appear to ever offer any subtopics. Subtopic never appears as a prompt.

If the user enters more than one topic HELP does not page the display unless the topic being displayed normally pages the screen. The help text for the first topic is scrolled off the screen.

Example:

Topic? create delete error

SPR #: 1713  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: net help server displays garbage

net help  
Topic? server

This displays 2 lines of garbage (foriegn characters, card symbols and smiley faces).



SPR #: 1736  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: LDU includes <DEL> characters when checking password length

```
net create \\donal%moore * /file=foobar  
Password:
```

If the user makes an error entering the password and heavily autorepeat the delete key the error message "Parameter too long" will be displayed and the command will fail. LDU is checking that the string length is less than or equal to 39 characters before saving the value. Unfortunately, each of the <DEL> characters was included in the calculation.

SPR #: 1737  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: /cluster option not recognized in NET MOUNT

NET MOUNT \\DONAL\SMITH%SMITH \* /file=foobar /cluster  
Command arguments incorrect

The /cluster option switch is not recognized.

ACTION/REMARKS:

The easiest workaround is to use the /query switch (omit the /cluster option switch) and get prompted for the information instead. i.e.

NET MOUNT /q

or

NET MOUNT \\DONAL\SMITH%SMITH \* /q

SPR #: 1739  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: inappropriate net print error message

use lpt1: \\viking\sys\$print%moore \*  
Password:

net print \sedt\sedtman.edt  
Device is not redirected

net print \sedt\sedtman.edt lpt1:  
Command completed successfully

The error message is inappropriate since the device was omitted. The error message implied that either an inappropriate device (not redirected) was supplied, or that it defaulted to a device that was not redirected. If it truly defaulted to a device, that should have been lpt1:, which was in fact redirected. The error message should have indicated that a device argument was omitted.

SPR #: 1740  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: Redirector doesn't handle ERRnotready correctly

If the service being connected to is located on a disk drive that is currently offline, the file server incorrectly returns ERRbadpw.

The user sees "Invalid service or password", should see an error something like "Device not ready".

Discussed this with Robert Praetorius, who located the problem to the sb\_setup routine not checking for an error returned from parsing the directory specification.

Returns:

General failure error reading drive 0  
Abort?

I don't know where drive 0 comes from but it always prints 0 no matter which drive is being connected.

Here's the SMB's:

Dump of SMB at addr 0xffc08:

```
smb->smb_com = SMBtcon
smb->smb_rcls = 0
smb->smb_err = 0
smb->smb_tid = 0
smb->smb_pid = 0
smb->smb_uid = 0
smb->smb_mid = 0
  Byte data (38 bytes):
    ASCII (4): \\DONAL\F001%FLAHERTY
    ASCII (4): password
    ASCII (4): A:
```

Dump of SMB at addr 0xe3268:

```
smb->smb_com = SMBtcon
smb->smb_rcls = 3
smb->smb_err = 21
smb->smb_tid = 0
smb->smb_pid = 0
smb->smb_uid = 0
smb->smb_mid = 0
  Word data: 8192 65535
```

Dump of SMB at addr 0xffc08:

```
smb->smb_com = SMBexit
smb->smb_rcls = 0
smb->smb_err = 0
smb->smb_tid = 2
smb->smb_pid = 24480
smb->smb_uid = 0
```

"The tree connect is returning error 3/21, which is ERRnotready (drive not ready) in the SMB spec. Sounds like use of the redirector or somebody needs to be taught to handle a new error or something."

**ACTION/REMARKS:**

This is really a cosmetic problem (ie: the error message is wrong, but does indicate that there is something wrong on the drive)..

The incorrect drive 0 in the error message comes up because the drive for the connection is not yet established (we are failing on the tree connect), and the common routine in the REDIR that handles this error (interrupt 24, hardware error) takes whatever value is in the drive variable, which happens to be drive 0.

Note, there is another field in the SMB smb\_reh, which for error class (smb\_rcls = 3 ), dictates whether the message says:

ABORT?  
or ABORT, RETRY, FAIL ?

etc., and depending on smb\_reh, redirector will allow different options

The VMS file server always set smb\_reh to 0 for this kind of error (hardware error), if retry is desired, this can be accomplished by returning some other number in smb\_reh field.



SPR #: 1750  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: net attrib prints command completed successfully after error messages

Attempting to modify the UIC protection of a file with NET ATTRIB /PROT when the user has insufficient access to the file produces the following response:

file protection error opening \FOO.BAZ  
command completed successfully

SPR #: 1754  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: USE has a limit of 6 characters for node name

It is possible to define a remote adapter name up to 16 characters and it can be used to address an executable on a VAX.

Potentially the executable could be another file server and thus all the existing client software would work with this server, except for USE.EXE.

SPR #: 1757  
Product: Network Client  
Class: Compatability  
H/W: VaxMate

**PROBLEM:** Limitation in posting receive broadcast in NETBIOS.EXE  
callback

Functionality of PCnet NETBIOS requires that all outstanding receive datagram broadcasts on any PC are satisfied by one broadcast message being received. So if there are 5 posted, all 5 are satisfied by one message received.

Now, in our implementation of NETBIOS, when a message is received, the internal table of outstanding receive datagram broadcasts is scanned, and each one is satisfied by the same incoming message.

The problem is that if any of the requests are posted with asynchronous callback routines, and the application posts another receive datagram broadcast during the callback, then it is possible for that new request to be satisfied by the same message. This does not happen under PCnet.

The problem occurs because the new request gets queued in the internal table, and if the new entry happens to be sequentially after the current one being examined, NETBIOS does not realise that the request is new, and received after the message begun processing.

This problem does not happen in synchronous mode, or asynchronous mode without a callback, and can only happen at most twice per message.

SPR #: 1758  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: Starting lad w/o /n: after failed remote boot -> Confuse  
USE/REDIR

Here are the steps to reproduce a situation USE/REDIR finds confusing:

Remote boot, get "not a system disk message" and select boot from C:.

Do NET START LAD... (<- note without telling it your name) Doesn't  
prompt for the usual 'start DNP or use /n:'

-----  
now do a

use f: service (- LAD service without the /v)

then the real thing

use f: service /v

After following this admittedly rather unusual set of actions, the  
redirector becomes confused:

net use f: /d results in this:

"Drive F: not disconnected -- drive is paused"

net use f: service /v gets the same message.

The USE display is also confused:

ERROR F: DISK \\oot@heynow/rw/f

At this point F: can't be disconnected, although it's there and  
healthy.

SPR #: 1759  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: f3-ing while selecting lat service -> all output y-umlaut

If you do an F3 (out of setup) while your cursor is in the select lat host (ie arrow keys positioned on on eof the lat services) then when you are back in terminal emulation, all output and input character become y-umlauts.

SPR #: 1801  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: LAD treats service ratings over 32K as negative.

If one service is served with a rating of "1" and another with the same name is served with a rating of "43445" (over 32K), the service rated "1" will be shown as having a higher rating.

SPR #: 1807  
Product: Network Client  
Class: Bug  
H/W: VaxMate

**PROBLEM:** SETHOST disconnects repeatedly without relief

Using LAT and SETHOST, SETHOST often disconnects with the following message:

Disconnected. No response from host, LAT retransmit limit reached.

This happens again and again... sometimes avery often (every 3 minutes) other times, a session can be maintained for an hour or more.

When it disconnects, a reboot is often required in order to have anything reconnect. Usually, the message "Service not known" will be displayed if you try to reconnect. Other times, a reconnection is possible without rebooting.

I have no idea if the problem is really sethost, or LAT, or a local problem here in LJ02. It does happen with both the RANGER cluster and other nodes as well.

SPR #: 1814  
Product: Network Client  
Class: Bug  
H/W: VaxMate

**PROBLEM:** LAST Transport using transaction timer and command time wrong

The LAST transport is currently using the transaction time and the command timer in the wrong places. The transaction timer is set to 6 and the command timer is set to three. When initially sends a command it should wait for the shorter period of time. If the transaction gets a resync, it should be using the longer timer (6 seconds). This effects performance on cards which do not run fast enough, but nothing else is broken. In addition if for some reason the Transport cannot get a buffer, or a datalink buffer call fails, the transport will wait the transaction timer seconds. This will be OK when the transaction timer is reduced to 3, but now causes a 6 seconds delay if we get a buffer failure from the datalink layer.

**ACTION/REMARKS:**

This should be fixed in a future release of the software.



SPR #: 1819  
Product: Network Client  
Class: Bug  
H/W: VaxMate

**PROBLEM:** Netbios returns invalid error code

When posting a receive datagram, Netbios returns an error code of 0A which is not a documented return code.

Error code should be 09 "out of resource"

SPR #: 1833  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: USE.PIF MEMORY TOO SMALL TO RUN USE.EXE

When USE is run from Windows and the user has increased the number OF variables in his environment (it doesn't take many), USE/or some other piece of our software returns the following error:

Error 2009: Not enough space for environment.

It is possible that USE.EXE got bigger and that the pif hadn't changed. The solution is to up the memory in the USE.PIF. This is fine by me, as adding memory size does correct the problem.

SPR #: 1848  
Product: Network Client  
Class: Bug  
H/W: VaxMate

**PROBLEM:** net attrib does not use default directory

The NET ATTRIB command is suppose to use the default directory on a drive if none is specified. Instead, it always uses the root directory. For example:

the file 'mumble.txt' is in n:\foobar

```
n:\foobar> net attrib n:foobar.txt
invalid file specification
n:\foobar> net attrib n:*. *
(lists files/dirs in the root of n:)
```

This is not a serious problem, but it violates the standard for MS/DOS programs (other utilities use the current directory on a drive).

SPR #: 638  
Product: Network Client  
Class: Documentation  
H/W: VaxMate

**PROBLEM:** BIOS INT 15h is disabled with the Network loaded

The network module SCH.EXE takes control of the RTC H/W interrupt and disables the BIOS INT 15h Set Wait Interval and Wait Interval functions. This has been observed on both a VAXmate and an IBM/AT (with a DEPCA).

The INT 15h function is still being serviced by the ROM BIOS but when any requests are made the ROM BIOS returns with the processor carry set indicating that the function is not available. This is correct but I am opening this SPR since the function is forever disabled after the network is loaded.

**ACTION/REMARKS:**

What you have observed is the correct and intended operation. Whenever the CMOS interval timer is in use by any process that evokes "event-wait" (INT 15h, fcn 83h) the timer interlock flag is set. If another process tries to use the clock it will indeed get the carry set error return. The meaning of this flag is: "The interval timer is in use at this time by someone else". In our case, the scheduler is always using the clock, so the flag is set to inform other programs that they must use an alternate means of timing (just as if they were on a PC or PC/XT).

As a means of preserving compatibility with poorly written applications and to support PC clones that claim they are AT compatible, but don't have a CMOS clock, a switch (/S) has been added to the scheduler startup to force it to use the "system" clock instead.

SPR #: 1539  
Product: Network Client  
Class: Issue  
H/W: VaxMate

PROBLEM: Just a suggestion to make "net use" a bit more user friendly

While working on "file server access right testing", it comes to me that it will be extremely helpful to have the client access right of the connected file services displayed in the "net use" display list (similar to the LAD connection.) Such feature will help the user to determine his access right to the service. It will also help the user during trouble shooting when an error occurs while attempting to perform an operation on the file server services.

ACTION/REMARKS:

This is a very good suggestion, but requires too much investigation at this point in the V2.0 release cycle. We would need to know what the ramifications of storing and displaying this information are. This should seriously be considered for the V2.1 release of the software.

SPR #: 1571  
Product: Network Client  
Class: Documentation  
H/W: VaxMate

**PROBLEM:** NET PAUSE DRDR: confusing to call it "disk"

If you issue NET PAUSE DRDR, then your FILE server connections are paused. You can still make DISK server connections. It is very confusing to have DRDR (which is listed in the help file as "disk redirection") when we have disk AND file server stuff for the user to sort out.

SPR #: 1573  
Product: Network Client  
Class: Documentation  
H/W: VaxMate

**PROBLEM:** NET HELP DELETE has /file= as optional

In the command syntax for NET HELP DELETE, the /FILE= parameter is listed as optional; I don't think it's optional.

The use of brackets to indicate optional parameters in the help files has to be revisited for most LDU commands. In the latest version it will prompt the user for any necessary missing information as long as the command token is entered.

NET DELETE <return> is fine. LDU will prompt for the filespec if it is not entered. (/query is different - it prompts for all remaining (valid arguments and option switches regardless of their necessity)

There are several other errors like not indicating that /password in NE MOUNT takes an argument, no definition of 'pcode', 'rights', or 'identifier' in NET ATTRIB, no explanation of what the optional parameter [drive:] does, the explanation of what NET MODIFY does doesn't mention changing the rating ...

SPR #: 1574  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: NET HELP DELETED: a topic with no info

In NET HELP, DELETED (in addition to DELETE) is listed as a topic.  
If you type NET HELP DELETED, it will come up with no text except

Topics?

INDEX

When you answer INDEX, there's no text.



SPR #: 1575  
Product: Network Client  
Class: Documentation  
H/W: VaxMate

PROBLEM: No such thing as NET PERMIT

NET HELP claims that there is a command NET PERMIT... we should either take the subject out of the NET command help file, change the help to be just PERMIT, or put it into the msnet.ini. Otherwise, when you follow the help file, and type NET PERMIT, the answer is "command does not exit."

SPR #: 1721  
Product: Network Client  
Class: Issue  
H/W: VaxMate

PROBLEM: MSNET.INI for Async install problem

In MSNET.DCP the line

Install \$1 \$2 \$3 \$4 \$5

WE NCP set exec name \$1 address \$2 state on

The state shown be set the same as the Line not on. I beleive it should read:

NCP set exec name \$1 address \$2 state \$5  
NCP def exec state \$5

This should also be defined since the default state is Off.

The documentation should reflect the fact that the State must be set to ON on the line and EXEC when running dialup async decnet.

The issue is that with the current msnet.dcp when we install as an ASYNC client, the exececuter is SET to ON but not defined. Therefore when the key disk is rebooted and a connection is made to the host using a terminal emulator both the exec and the line must be turned ON when the NET is started. One opinion is what ever \$5 is set to during install is what both the line and the exec should be set and defined to. Another opinion is that the exec should be set and defined to ON and the line should be set and defined to what \$5 is during installation. In either case the MSNET.DCP is incorrect must be changed.

**ACTION/REMARKS:**

This is a very good suggestion, and we will consider it for V2.1 or the next release.

SPR #: 1820  
Product: Network Client  
Class: Bug  
H/W: VaxMate

**PROBLEM:** Installation check modification

Currently, there is no way to check if Netbios or Msnet is loaded. An installation check returns success if either version of session is loaded. The installation check should be modified to return a different value when either Netbios or Msnet is loaded.

**ACTION/REMARKS:**

This is a suggestion that we modify NETBIOS and/or msnet.ini to tell you which one is loaded. In fact the protocol for determining loaded/non-loaded does not currently allow you to pass such information. Perhaps one method to do it would be to pass a pointer to the signature area, and modify the signature for netbios. This should clearly be put on a next release wish list.

SPR #: 1853  
Product: Network Client  
Class: Compatability  
H/W: VaxMate

**PROBLEM:** NETBIOS.EXE do not chain calls based on LANA numbers

If NETBIOS is run in an environment where there is also another NETBIOS emulation (by another vendor) running on the same PC, then there is a potential that communication via both NETBIOS emulation may not be possible.

**Example of uses:**

PC running gateway software connecting to token ring and ethernet.

**Potential problem:**

Gateway software will need NETBIOS services from both NETBIOS emulations. Since both NETBIOS emulations uses the same software interrupt, at least one of them will have to know that there is more than one NETBIOS emulation, and chain to the other if the LANA numbers do not match.

Currently, our NETBIOS emulation do not check if there is an existing NETBIOS emulation, and chain to it if it receives a NETBIOS call with the wrong LANA number. The only possible way for this to work is for our NETBIOS emulation to be loaded first, and for the second NETBIOS emulation to chain to it.

SPR #: 619  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: intermittent in msnet.ini

This problem has occurred 5 times today. I can not get it to repeat upon demand though.

Edit msnet.ini to change the lat and redir lines as follows:

```
\netrun lat /D:20  
\netrun redir /L:26 /S:26 /P1:2048
```

(select limits of 30 terminal services, 26 simultaneous connections, 26 servers, and a 2kb lpt1: buffer)

Cold boot.

If "net start rdr" is included in autoexec.bat it fails, reporting:

"Incorrect number of parameters"

A second "net start rdr" (without rebooting) appears to succeed, but reports that it is using the defaults. NCP reports the database path - D:\DECNET\ . D:\DECNET does not exist!

In this particular case I used legitimate parameters set directly in msnet.ini. However, the behavior is unpredictable. How do we KNOW that this same type of fault could not occur using the default values, or with parameters passed as command line arguments?

SPR #: 807  
Product: Network Client  
Class: Bug  
H/W: VaxMate

**PROBLEM: Numerous systems hang simultaneously**

This bug has been seen at NaC and more recently, in LJO2. Over a brief period of time, many VAXmates connected to a common wire will hang, with interrupts locked out. A hard reboot restores the VAXmate to operation.

Case 1: At NaC, on a given Thursday evening, all 12 VAXmates hung simultaneously. They were all rebooted. A short period of time later, they again hung. This was repeated 6-10 times that evening. Beginning the next morning, the problem was not seen again.

Case 2: About the time that VMS 4.5 was installed on the RANGER cluster, numerous systems around the building hung with apparent simultaneity. In addition, some IBM PC/ATs w/DEPCAs also hung. This did not repeat.

Case 3: On the evening of March 4th, numerous systems hung.

We have no idea what causes this, if anything. An HP monitor will be used by Jim to watch the network for future occurrence. Speculation includes corrupt MOP or LAT multicast packets, cosmic rays and The AntiChrist.

The same problem has been reported from the VAXstar group at ML and at by others ZK. Simultaneous hangs at ZK. As soon as possible, we shall bring CPU II boards with the latest green-dotted ROMs to see if the change makes an empirical difference. This is a serious problem.

I have seen this problem NUMEROUS times. One Saturday, I came in and ALL machines on my thinwire segment were hung. All required a power-down in order to be rebooted. For about 5 minutes, the condition on the wire (whatever it was) persisted. I started the machines again and they all hung. Then I started the network on each machine manually. I first loaded SCH. No problem. Then I loaded DLL. I got the startup message and the machine would promptly crash before returning to the DOS prompt. This happened on a VAXmate, an IBM PC with a 3-COM card, and a DEPCA card. I never made it past DLL. Eventually, the mysterious condition on the wire went away. The problem seems to happen with regularity on my segment (and we have a bridge) during the night -- not during the day. This problem is a serious one.

SPR #: 998  
Product: Network Client  
Class: Bug  
H/W: VaxMate B

PROBLEM: nonrepeatable - net start rdr does not turn on executor

```
net start rdr
connect to colors using (Ethernet) LAT connection.
net start lad
use d: moore /v /rw
use e: \\colors\vxsys
Network not started
```

ncp show exec char indicates that DNP is not loaded since the executor state is off and the node address = 0.0

```
net start rdr
use e: \\colors\vxsys
Network not started
```

```
sch
dnp
```

ncp show exec char indicates that DNP is not loaded since the executor state is off and the node address = 0.0

NCP list known nodes displays valid entries from decnode.dat.

Saved decparm.dat as decparm.sav. reinstalled FTL 9.40. rebooted.

```
net start rdr
use e: \\colors\vxsys works fine.
fc between decparm.dat and decparm.sav reports "no differences
encountered"
```

SPR #: 1305  
Product: Network Client  
Class: Bug  
H/W: VaxMate 'B', RANGER cluster

PROBLEM: NET813: Not enough space for print file

```
net use lpt1: \\viking\sys$ln03
net print print.job lpt1:
NET813: Not enough space for print file
Abort, Retry, Fail? r
Abort, Retry, Fail? a
Abort, Retry, Fail? a
Command completed successfully
```

chkdsk reports 241,984 bytes of free memory, 8.9MB of free disk space.  
(had shelled out of the terminal emulator) print.job is a 181,653 byte  
text file.

- (1) Why did it fail?
- (2) Why didn't it abort when requested? (first time)
- (3) Why does NET report "Command completed successfully" when it was aborted?

**ACTION/REMARKS:**

This is all one problem.

It turns out that the PCFS spooler used the same drive as my VMS account, so when I freed up a lot of space on the drive, the problem went away.

The two aborts appear to be the child (printq.exe) aborting and then the parent (net.exe) aborting. The second abort, and the "command completed successfully" appear to be due to NET.EXE not checking the status code of the child process.



SPR #: 1306  
Product: Network Client  
Class: Bug  
H/W: VaxMate 'B', RANGER cluster

PROBLEM: net print didn't detect lpt2:, use.exe did.

```
net print print.job lpt2:  
Abort, Retry, Fail? f  
Abort, Retry, Fail? a  
Abort, Retry, Fail? a  
Command completed successfully
```

exit ! resume sethost.exe, and then kill it to free up memory

```
net print print.job lpt2:  
No such device: LPT2:
```

use ! lists LPT1: and LPT2: - blank status fields

```
net use lpt2: /d  
Command completed successfully
```

Why doesn't printq.exe detect LPT2: ?

SPR #: 1611  
Product: Network Client  
Class: Bug  
H/W: VaxMate B

PROBLEM: net print doesn't recognize valid printer redirection

C:\DECNET net print print.job lpt1:  
No such device LPT1

C:\DECNET use  
MS-NET/LAD USE Utility Version BL5

[LAD drives D: - G:]

Local Status	Service Device	Service Type	Name	Access
	D:	DISK	\\DONAL\MOORE	/RW/F
	LPT1	FILE	\\VIKING\SYS\$PRINT%MOORE	

C:\DECNET net print print.job lpt1:  
No such device LPT1

C:\DECNET net print print.job lpt1:  
No such device LPT1

C:\DECNET use lpt1: \\colors\systprint%moore \* /R  
Password:

C:\DECNET net print print.job lpt1:  
No such device LPT1

Had to reboot to clear the problem!

config.sys contains:

```
BUFFERS=20  
FILES=20  
LASTDRIVE=Z  
DEVICE=C:\DOS\ANSI.SYS  
DEVICE=C:\DECNET\LADDRV.SYS  
DEVICE=C:\DECNET\NDDRV.SYS  
BREAK=ON
```

One NDU drive was open (H:).

Rebooting has not solved the problem. I still can't use LPT1.  
However, I have no problems using lpt2: which I redirected using the  
default account.

SPR #: 1766  
Product: Network Client  
Class: Won't be fixed  
H/W: VaxMate, DEPCA, 3-COM, MICOM

**PROBLEM:** PCSA Does not work with VGA card

We have recently discovered that the IBM and Paradise VGA cards hook the 6D interrupt which is currently used by all datalinks that we currently ship. This renders PCSA and DECnet-DOS/Ethernet version unusable on the VGA class of boards.

It has become critical that we address this problem since IBM and COMPAQ have announced that they are no longer making EGA boards and that some retail chains have pulled them from the shelves in favor of the newer VGA boards.

It is my recommendation that we address and fix this problem in V2.0 before we ship it to customers, as it will in all likelihood have a major impact on future sales of PCSA.

**ACTION/REMARKS:**

The 5x5 has decided that this problem will not be addressed in the V2.0 product other than that the ROM Code changes required to be placed in the DEPCA will be included in the DEPCA ECO project.

SPR #: 130  
Product: Network Client  
Class: Won't be fixed  
H/W: VAXMATE

**PROBLEM:** Log off message is not completely displayed

When using the VT240 or VT220 Terminal Emualtor with LAT to connect to service such as RANGER, when the user logs out the entire logoff message is not always displayed.

I notice that this also happens with the regular LAT line in my office connected to a VT220. Perhaps this is a LAT driver bug on the VAX end?

Problem caused by close de-allocating buffers before all characters have been taken by client and client declaring session ended upon receipt of notification from the LAT Driver.

SPR #: 1742  
Product: Network Client  
Class: Bug  
H/W: ECO DEPCA in PC-AT@8MHZ in 16K buffer mode

PROBLEM: LAD gives General Failure errors in 16K buffer mode

The ECO'ed DEPCA has many problems when running in 16K Buffer mode. Under heavy network traffic, the DEPCA has some trouble keeping up with LAD messages and causes LAST to not be able to get data when it needs. This results in a General DOS failure error message.

**ACTION/REMARKS:**

After investigating what will cause the general failure error message it was determined that if LAST returns a NO BUFFER error to LAD, this is translated into a general failure. The Link is still maintained and the user will not loose any data if he elects to retry the operation.

A workaround exists, but there is still some impact to the user. I believe in documentation we do tell the user that if he uses the reduced buffering, there will be some performance impact, perhaps we should indicate that this is an manifestation of one of those performance impacts.

This will be fixed as part of the DEPCA ECO Patch and has also been addressed in LAD/LAST by reducing the # of segments requested in reduced buffer mode to only 2 buffers. Since this fix is beyond the scope of V2.0 it will be fixed in the next release of the software.

SPR #: 1778  
Product: Network Client  
Class: Won't be fixed  
H/W: VaxMate

PROBLEM: net error stops on invalid lad drives

Net error will stop displaying LAD error statistics when it encounters an invalid drive. The problem is fixed by moving "lsb\_ptr++;" down one line to the other side of a brace. The code fragment used to be in the right place, it appears it was accidentally moved during some cutting and pasting for several NDU related changes.

SPR #: 1818  
Product: Network Client  
Class: Won't be fixed  
H/W: VaxMate

**PROBLEM:** Netbios returns error when posting a receive datagram.

When processing a datagram sent from the same node, if a process tries to post another receive datagram, Netbios returns with an error code of 0A. This only occurs when you broadcast a message from the same node several times.

The problem was traced and it seems that Netbios runs out of stack space. I recommend that we increase the number of stacks for processing datagrams.

For clarification, the above is referring to processing of completed commands during the asynchronous callback, and posting another request while in the callback. The problem does not occur in any other form, ie will not happen in synchronous mode, asynchronous with no callback, or synchronous with callback where the application does not attempt to post further requests in the callback.

Msnet (version 1 and 2) and netbios has a pool of stacks to be used each time the application requests a function. If the application calls Netbios during the callback, while the background program is also calling Netbios, then there is a possibility of netbios not having enough stacks to service both requests simultaneously. Increasing the number of stacks will reduce the possibility of the problem, or retrying at a later time will also succeed.

The error code returned is 0ah means "session closed". The equate for this is incorrect, it should return 09h "out of resource".

**ACTION/REMARKS:**

This will not be fixed in V2.0. It will be addressed in V2.1 or the next release of the software.

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

LABORATORY OF ORGANIC CHEMISTRY

CHICAGO, ILLINOIS

REPORT OF RESEARCH

BY

DR. ROBERT M. WAYNE

AND

DR. J. H. GOLD

FOR THE YEAR 1954

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SPR #: 869  
Product: Network Client  
Class: Won't be fixed  
H/W: VaxMate

**PROBLEM:** Redirector causes lost keystrokes

The following sequence of events will result in lost keystrokes when the REDIRECTOR is loaded.

Note: All ROM's (8042,8051 and ROM BIOS) are the latest.  
This is not dependent on the LK250 keyboard.  
This happens on both the VAXmate and the IBM/PC-AT.

**Detailed Explanation:**

=====

1. Someone is (very) busy typing at the keyboard.
2. Application software sends either a command or data to the keyboard 8051. This may be sent via the DEC extended BIOS functions (Int. 16h) or directly through the 8042, as in IBM/PC-AT. This requires that the 8051 respond with an ACK (0fah) to the main processor (80286).
3. In the event that the 8051 is kept busy enough processing commands, scan codes from the keyboard will be stacked up in the 8051 and not sent.
4. The 8051 gets a breather from processing commands from the 80286 and begins sending stacked up scan codes back-to-back to the 8042.
5. The first scan code is received by the 8042 and is put in its output buffer generating a keyboard H/W interrupt to the 80286.
6. In steps the REDIRECTOR. It reads the 8042's output buffer to check for the <CTRL><ALT><PRTSC> key combination.
7. The 8042 senses that the scan code has been read by the 80286 and begins receiving the next scan code from the 8051.
8. The REDIRECTOR, after a small amount of processing, passes control to the ROM BIOS to finish processing of the keyboard H/W interrupt.
9. The ROM BIOS sends a command to the 8042 to disable any further keyboard interrupts, but, the 8042 is busy receiving the next scan code from the 8051. The ROM BIOS now patiently waits for the 8042 to process the command to disable the keyboard.
10. After receiving the next scan code from the 8051, the 8042 puts it in its output buffer overwriting the first scan code put there in # above.
11. Now that the business of receiving the scan code is done, the 8042 reads (and processes) the ROM BIOS's command to disable the keyboard.

by the 8042 and now proceeds to read the 8042's output buffer. It's too late. The scan code that originally generated this H/W interrupt was overwritten in #10 above.

**ACTION/REMARKS:**

This problem is extremely rare. The risk involved in putting in any kind of fix is too high.

SPR #: 937  
Product: Network Client  
Class: Won't be fixed  
H/W: VaxMate

PROBLEM: USE Requires spaces between command-line switches

USE 'complains' when I don't put spaces between switches.

eg. USE F: FOOBAR /v/f

If entered as: "USE F: FOOBAR /v\_/f", USE is happy.

Space required \_\_\_|

This is contrary to the generally excepted convention of packing as many switches together as is will logically go together.

It is however consistent with all the other MS-NET components. This problem was brought up during V1.0 and it was decided that all the Microsoft components did this the same way that is you must specify the spaces between switches, even though this did not meet with the DEC norm. I would recommend that we mark this SPR as Anomaly since there would be major changes to other components, and it is consistent with the other Microsoft components.

SPR #: 1550  
Product: Network Client  
Class: Bug  
H/W: VaxMate

PROBLEM: net use parsing error message is confusing

The command

```
NET USE d: alias /v *
```

returns the error message

```
command does not exist.
```

This is confusing... if the parsing in use can't understand this, maybe it should return "bad parameters" or something like that.

The problem is with NET. Net does not expect a \* after a switch (/v) and so it assumes that a match did not occur. USE does not get called at all. Same problem occurs with LDU.

ACTION/REMARKS:

Work around is don't do that. Put the \* before you put any switches.

The changes needed to make the NET and all the utilities context insensitive to the syntax of the command line are too great at this point in time. We may consider this for V2.1 or beyond. It involves rewriting a major portion of all the utilities as well as NET.

SPR #: 1711  
Product: Network Client  
Class: Won't be fixed  
H/W: VaxMate

PROBLEM: invalid net help topics

NET HELP supports both ERR and ERROR as topics. Both display the same help text for the NET ERROR command. ERR is not a legal command.

MAKEFILE is also listed as a topic. Requesting help on it displays the list of topics. MAKEFILE is not a legal command.

ACTION/REMARKS:

Will consider this for V2.next.

SPR #: 187  
Product: Network Client  
Class: Issue  
H/W: PCXX

**PROBLEM: Net printing fix**

I have used the net printing fix (Ctrl/Alt/Prtscrn) for all the third-party applications that require such a command telling a server that an end-of-file has been reached and to begin printing.

However, SAMNA WORD ver. III is one third-party application that does not interpret the net printing fix at all, mainly because it takes over the ALT key, translating it to a cancel function. So the net fix will not work with all third-party applications.

SPR #: 1537  
Product: Network Client  
Class: Issue  
H/W: VaxMate

**PROBLEM:** Misleading error message when attempting to read a file from  
A file service network drive that is granted with write and  
create access only

Drive X: is connected to a file service that is granted with write and  
create access file tester.tmp existed in the file service directory.

When trying to read a file from the file service via "type tester.tmp",  
an "Error Reading File" error message is returned. The error message  
seems to indicate more of a read error due to bad data than the normal  
"access denied".

**ACTION/REMARKS:**

This error comes from the TYPE command, and may indicate its  
interpretation of what ACCESS denied means. The error I will agree is  
very ambiguous as to what the real problem may be, but since the  
mapping is occurring in an application there is not much we can do  
about this in the time frame in which we have to look into this.  
This will be looked at in V2.1.

