



```

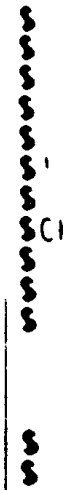
NN      NN  EEEEEEEEE  TTTTTTTTT  CCCCCCCC  000000  NN      NN  FFFFFFFF  IIIIII  GGGGGGG
NN      NN  EEEEEEEEE  TTTTTTTTT  CCCCCCCC  000000  NN      NN  FFFFFFFF  IIIIII  GGGGGGG
NN      NN  EE          TT          CC          CO          OO  NN      NN  FF          II          GG
NN      NN  EE          TT          CC          CO          OO  NN      NN  FF          II          GG
NNNN    NN  EE          TT          CC          CO          OO  NNNN    NN  FF          II          GG
NNNN    NN  EE          TT          CC          CO          OO  NNNN    NN  FF          II          GG
NN  NN  NN  EEEEEEEEE  TT          CC          CO          OO  NN  NN  NN  FFFFFFFF  II          GG
NN  NN  NN  EEEEEEEEE  TT          CC          CO          OO  NN  NN  NN  FFFFFFFF  II          GG
NN      NN  NN  EE          TT          CC          CO          OO  NN      NN  NN  FF          II          GG
NN      NN  NN  EE          TT          CC          CO          OO  NN      NN  NN  FF          II          GG
NN      NN  NN  EE          TT          CC          CO          OO  NN      NN  NN  FF          II          GG
NN      NN  NN  EE          TT          CC          CO          OO  NN      NN  NN  FF          II          GG
NN      NN  EEEEEEEEE  TT          CC          CO          OO  NN      NN  NN  FF          II          GG
NN      NN  EEEEEEEEE  TT          CC          CO          OO  NN      NN  NN  FF          II          GG
NN      NN  EEEEEEEEE  TT          CCCCCCCC  000000  NN      NN  NN  FF          IIIIII  GGGGGGG
NN      NN  EEEEEEEEE  TT          CCCCCCCC  000000  NN      NN  NN  FF          IIIIII  GGGGGGG

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LL      IIIIII  SSSSSSS
LL      IIIIII  SSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SSSSS
LL      II      SSSSS
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LL      II      SS
LLLLLLLL  IIIIII  SSSSSSS
LLLLLLLL  IIIIII  SSSSSSS

```



Facility: NETCONFIG, Automatic DECnet Database Configurator

Abstract: This procedure uses parameter information and the network I/O device environment in which it is run to automatically configure a DECnet permanent database.

Environment: Executed from the system manager's account on a VAX/VMS capable of running DECnet.

Parameters: P1 - DECnet node name for this node, 1 to 6 alphabetic characters (prompt for if omitted)  
P2 - DECnet node number, 0 to 1023 (prompt for if omitted)  
P3 - Do you want a default DECnet account? [YES]  
P4 - Do you want to run as a router? [NO]  
P5 - Do you want to startup DECnet? [NO]

Author: Tim Halvorsen  
Created: June 1982

## Modifications:

V03-008 PRB0342 Paul Beck 22-JUL-1984 21:39  
Fix problem with comment emerging as actual command.

V03-007 PRB0339 Paul Beck 27-JUN-1984 20:05  
Offer to configure CI if PA device is present.  
Offer advice about CI configuration when done.  
Issue warning if no datalinks were defined.

V03-006 PRB0333 Paul Beck 26-APR-1984 15:45  
Remove DISUSER flag from default DECnet account, and  
add /NOINTERACTIVE /NOBATCH qualifiers.  
Fix bad address checking and prompt defaulting for areas.  
Autoconfigure devices if minimum boot was done.

V03-005 WHM0001 Bill Matthews 16-Apr-1984  
Replaced reference to SCSNODEL/H with SCSNODE.

V03-004 PRB0315 Paul Beck 2-MAR-1984 12:32  
/PAGINATE changed to /PAGE  
Fix calculation of MAX ADDRESS to omit area portion of address  
Align prompts

V03-003 PRB0308 Paul Beck 4-FEB-1984 18:09  
Use TYPE/PAGE to print out list of commands.  
Adjust maximum address if needed.  
Use node name from SYSGEN as default for node name.

V03-002 TMH0002 Tim Halvorsen 05-Oct-1983  
Add option to setup as router/endnode and to start DECnet  
(without having to exit and run STARTNET).  
Purge desired node name from the remote node database  
before defining the executor.  
Add QNA to the list of known devices.  
Put temporary files in SYSSMANAGER rather than SYSSSYSTEM.

V03-001 ROW0194 Ralph O. Weber 12-JUL-1983  
Add module header. Setup use of P1 through P3 parameters.

REQUIRED\_PRIVILEGES = "SYSPRV,OPER"

```

$ PREV PRIVS = F$SETPRV(REQUIRED PRIVILEGES)
$ IF .NOT. F$PRIVILEGE(REQUIRED PRIVILEGES) THEN GOTO NO_PRIVILEGES
$ ON ERROR THEN GOTO NO_CHANGES
$ ON CONTROL Y THEN GOTO NO_CHANGES
$ NO_PROMPT = P1 .NES. "" .AND. P2 .NES. ""
$ IF .NO_PROMPT THEN GOTO SKIP_IDENTIFICATION
$ TYPE SYSSINPUT

```

### DECnet-VAX network configuration procedure

This procedure will help you define the parameters needed to get DECnet running on this machine. You will be shown the changes before they are executed, in case you wish to perform them manually.

```

$
$SKIP IDENTIFICATION:
$ SMALL_DISK_SYSTEM = (F$GETDVI('SYSSYSDEVICE','MAXBLOCK') .LT. 53000 -
    .OR. F$LOG('LIBSYSDEVICE') .NES. '')
$ IF F$SEARCH(F$PARSE('NCP','SYSSYSTEM:.EXE')) .EQS. '' -
    .OR. F$SEARCH(F$PARSE('NMLSHR','SYSSLIBRARY:.EXE')) .EQS. '' -
    .OR. F$SEARCH(F$PARSE('AUTHORIZE','SYSSYSTEM:.EXE')) .EQS. '' THEN -
    GOTO MISSING_TOOLS
$ IF F$SEARCH('SYSSMANAGER:SHOWDEV.TMP') .NES. '' THEN -
    DELETE /NOLOG SYSSMANAGER:SHOWDEV.TMP;* ! Delete old versions
$ OPEN/WRITE NETCONFIG$FILE SYSSMANAGER:NETCONFIG.TMP
$ WRITE NETCONFIG$FILE '$ RUN SYSSYSTEM:NCP'
$
$ :
$ Purge out any existing database
$
$ IF F$SEARCH('SYSSYSTEM:NETNODE.DAT') .NES. '' THEN -
    WRITE NETCONFIG$FILE " PURGE EXECUTOR ALL"
$ IF F$SEARCH('SYSSYSTEM:NETLINE.DAT') .NES. '' THEN -
    WRITE NETCONFIG$FILE " PURGE KNOWN LINES ALL"
$ IF F$SEARCH('SYSSYSTEM:NETCIRC.DAT') .NES. '' THEN -
    WRITE NETCONFIG$FILE " PURGE KNOWN CIRCUITS ALL"
$ IF F$SEARCH('SYSSYSTEM:NETLOGGING.DAT') .NES. '' THEN -
    WRITE NETCONFIG$FILE " PURGE KNOWN LOGGING ALL"
$
$ :
$ Always issue the following PURGES, solely to create a
$ null database (so that NML doesn't complain about
$ the database not existing during STARTNET).
$
$ WRITE NETCONFIG$FILE " PURGE KNOWN OBJECTS ALL"
$ WRITE NETCONFIG$FILE " PURGE MODULE CONFIGURATOR KNOWN CIRCUITS ALL"
$
$ :
$ Prompt for executor address and name
$
$ NAME - P1
$ GOTO TEST_NAME
$WRONG NAME:
$ WRITE SYSSOUTPUT "Your DECnet node name should match your VAXcluster node name."
$ PROMPT = F$FAO('!60AS', 'Want to reenter your DECnet node name? ')
$ INQUIRE/NOPUNC Q "" PROMPT
$ IF Q THEN GOTO PROMPT_NAME
$ GOTO TEST_NAME
$ILLEGAL NAME:
$ WRITE SYSSOUTPUT "Illegal node name - maximum of 6 characters"
$PROMPT NAME:
$ DEFAULT_NAME := 'F$GETSYI('SCSNODE')
$ DEFAULT_PROMPT = '[' + DEFAULT_NAME + ']'
$ IF DEFAULT_PROMPT .EQS. '[' THEN DEFAULT_PROMPT = ''
$ L = 60 - F$LENGTH(DEFAULT_PROMPT)
$ PROMPT = F$FAO('!'L'AS!AS', -

```



```

$ :
$ : See if we should be router or endnode (endnode preferred)
$ :
$ EXEC_TYPE = 'NONROUTING IV'
$ REPLY = P4
$ IF REPLY .NES. "" THEN GOTO TEST_EXEC_TYPE
$ IF NO_PROMPT THEN GOTO SET_EXEC_TYPE
$ INQUIRE REPLY -
$ "Do you want to operate as a router? [NO (nonrouting)]"
$ IF REPLY .EQS. "" THEN REPLY = 'NO'
$ TEST_EXEC_TYPE:
$ IF REPLY THEN EXEC_TYPE = 'ROUTING IV'
$ SET_EXEC_TYPE:
$ WRITE NETCONFIGSFILE " DEFINE EXECUTOR TYPE .EXEC_TYP.
$ :
$ : See if default DECnet account is desired
$ :
$ IF NO_PROMPT THEN GOTO MAKE_DEF_ACCOUNT
$ REPLY = P3
$ IF REPLY .NES. "" THEN GOTO TEST_DEFACC
$ INQUIRE REPLY -
$ "Do you want a default DECnet account? [YES]"
$ IF REPLY .EQS. "" THEN REPLY = 'YES'
$ TEST_DEFACC:
$ IF .NOT. REPLY THEN GOTO NO_DEFACC
$ MAKE_DEF_ACCOUNT:
$ WRITE NETCONFIGSFILE " DEFINE USER 'DECNET' USER DECNET"
$ WRITE NETCONFIGSFILE " DEFINE PASSWORD 'DECNET' PASSWORD DECNET"
$ WRITE NETCONFIGSFILE " DEFINE USER 'DECNET' SYSTEM SYSUAF.DAT"
$ WRITE NETCONFIGSFILE " RUN SYS$SYSTEM:UTMORIZE"
$ WRITE NETCONFIGSFILE " ADD DECNET /OWNER="DECNET DEFAULT" -"
$ WRITE NETCONFIGSFILE " /PASSWORD=DECNET -"
$ WRITE NETCONFIGSFILE " /UID=[376,376] /ACCOUNT=DECNET -"
$ WRITE NETCONFIGSFILE " /DEVICE=SYS$SYSDEVICE /DIRECTORY=[DECNET] -"
$ WRITE NETCONFIGSFILE " /PRIVILEGE=(TRMBOX,NETMBOX) -"
$ WRITE NETCONFIGSFILE " /FLAGS=(CAPTIVE) /LGICMD=NL: -"
$ WRITE NETCONFIGSFILE " /NOBATCH /NOINTERACTIVE "
$ IF .NOT. SMALL_DISK_SYSTEM THEN - " If RLO2 system, inhibit network .LOGs
$ WRITE NETCONFIGSFILE " $ (CREATE/DIRECTORY SYS$SYSDEVICE:[DECNET] /OWNER=[376,376])"
$ IF SMALL_DISK_SYSTEM THEN WRITE SYS$OUTPUT - " and print out a message
$ "This is a small disk system. As a result, the default DECnet account"
$ IF SMALL_DISK_SYSTEM THEN WRITE SYS$OUTPUT -
$ "will be setup so that .LOG files will not be created for network jobs."
$ WRITE NETCONFIGSFILE " $ RUN SYS$SYSTEM:NCP
$ NO_DEFACC:
$ :
$ : Get various communications devices (by doing a SHOW DEVICE)
$ :
$ :
$ STARTUP_P1 := F$GETSYI("STARTUP_P1")
$ TEMP = F$LOCATE("MIN",STARTUP_P1)
$ IF TEMP .EQ. F$LENGTH(STARTUP_P1) THEN GOTO CONFIGURED
$ IF TEMP .NE. 0 THEN GOTO CONFIGURED
$ WRITE SYS$OUTPUT "Minimal system was booted."
$ INQUIRE 0 -
$ "Do you want to perform SYSGEN AUTOCONFIGURE ALL? [YES]"
$ IF 0 .EQS. "" THEN 0 = 'Y'
$ IF .NOT. 0 THEN GOTO CONFIGURED
$ RUN SYS$SYSTEM:SYSGEN
AUTOCONFIGURE ALL
EXIT
$ CONFIGURED:
$ FOUND_DATALINK = 0
$ FOUND_PA = 0

```

```

$ FOUND CI = 0
$ DEFINE/USER SYSS$OUTPUT SYSS$MANAGER:SHOWDEV.TMP
$ SHOW DEVICES ! Write SHOW DEV info to a file
$ OPEN/READ NETCONFIG$SHOWDEV SYSS$MANAGER:SHOWDEV.TMP -
  /ERROR=NO MORE DEVICES
$ READ NETCONFIG$SHOWDEV LINE ! Read header lines
$ READ NETCONFIG$SHOWDEV LINE
$ READ NETCONFIG$SHOWDEV LINE
$ READ NEXT DEVICE:
$ READ NETCONFIG$SHOWDEV LINE - ! Read next line in file
  /END_OF_FILE=NO_MORE_DEVICES

$30:
$ IF F$EXTRACT(0,1,LINE) .NES. "" THEN GOTO 40 ! Skip leading blanks
$ LINE = F$EXTRACT(1,999,LINE)
$ GOTO 30

$40:
$ IF F$LOCATE(":",LINE) .EQ. F$LENGTH(LINE) THEN GOTO READ_NEXT_DEVICE ! Skip spurious lines
$ DEVNAME = F$EXTRACT(0,F$LOCATE(":",LINE),LINE) ! Get device name from line
$ DEVUNIT = F$GETDVI(DEVNAME,"UNIT")
$ DEVTEMP = (DEVNAME + ":") - (F$STRING(DEVUNIT) + ":")
$ IF F$LOCATE("$",DEVTEMP) .LT. F$LENGTH(DEVTEMP) THEN -
  DEVTEMP = F$EXTRACT(F$LOCATE("$",DEVTEMP)+1,999,DEVTEMP)
$ DEVTYPE = F$EXTRACT(0,F$LENGTH(DEVTEMP)-1,DEVTEMP)
$ DEVCONT = F$STRING(F$CVUI(0,8,F$EXTRACT(F$LENGTH(DEVTEMP)-1,1,DEVTEMP))-F$CVUI(0,8,"A"))
$ IF DEVTYPE .EQS. "XM" THEN GOTO DMR
$ IF DEVTYPE .EQS. "XD" THEN GOTO DMP
$ IF DEVTYPE .EQS. "XG" THEN GOTO DMF
$ IF DEVTYPE .EQS. "XE" THEN GOTO UNA
$ IF DEVTYPE .EQS. "XQ" THEN GOTO QNA
$ IF DEVTYPE .EQS. "XX" THEN GOTO UE
$ IF DEVTYPE .EQS. "CN" THEN GOTO CI
$ IF DEVTYPE .EQS. "PA" THEN GOTO PA
$ GOTO READ_NEXT_DEVICE

$DMR:
$ DATALINK = "DMC-" + DEVCONT
$ COST = 5
$ GOTO POINT_TO_POINT

$DMP:
$ DATALINK = "DMP-" + DEVCONT
$ COST = 5
$ GOTO POINT_TO_POINT

$DMF:
$ DATALINK = "DMF-" + DEVCONT
$ COST = 8
$ GOTO POINT_TO_POINT

$UNA:
$ IF DEVUNIT .NE. 0 THEN GOTO READ_NEXT_DEVICE ! Ignore cloned UCBs
$ DATALINK = "UNA-" + DEVCONT
$ COST = 3
$ GOTO POINT_TO_POINT

$QNA:
$ IF DEVUNIT .NE. 0 THEN GOTO READ_NEXT_DEVICE ! Ignore cloned UCBs
$ DATALINK = "QNA-" + DEVCONT
$ COST = 4
$ GOTO POINT_TO_POINT

$UE:
$ IF DEVUNIT .NE. 0 THEN GOTO READ_NEXT_DEVICE ! Ignore cloned UCBs
$ DATALINK = "UE-" + DEVCONT
$ COST = 4
$ POINT TO POINT:
$ WRITE NETCONFIG$FILE "" DEFINE LINE "DATALINK," STATE ON"
$ WRITE NETCONFIG$FILE "" DEFINE CIRCUIT "DATALINK," STATE ON COST ",COST"
$ FOUND_DATALINK = 1

```

```

$ GOTO READ_NEXT_DEVICE
$PA:
$ FOUND_PA = 1
$ GOTO READ_NEXT_DEVICE
$CI:
$ DATALINK = 'CI-0'
$ WRITE NETCONFIG$FILE " DEFINE LINE " ,DATALINK," STATE ON"
$ FOUND_DATALINK = 1
$ FOUND_CI = 1
$ GOTO READ_NEXT_DEVICE
$
$NO MORE DEVICES:
$ CLOSE NETCONFIG$SHOWDEV
$ DELETE /NOLOG SYSSMANAGER:SHOWDEV.TMP;*
$
$ :
$ : See if we need to interrogate for CNDRIVER.
$ :
$ IF FOUND_PA .EQ. 0 THEN GOTO NO_CI
$ IF FOUND_CI .EQ. 1 THEN GOTO NO_CI
$ INQUIRE 0 -
$ : "Do you want to use the CI as a DECnet datalink? [NO]"
$ IF 0 .EQS. "" THEN 0 = 'N'
$ IF .NOT. 0 THEN GOTO NO_CI
$ DATALINK = 'CI-0'
$ WRITE NETCONFIG$FILE " DEFINE LINE " ,DATALINK," STATE ON"
$ FOUND_DATALINK = 1
$ FOUND_PA = 2
$ FOUND_CI = 1
$NO_CI:
$
$ :
$ : Setup default logging database
$ :
$ WRITE NETCONFIG$FILE " DEFINE LOGGING MONITOR STATE ON"
$ WRITE NETCONFIG$FILE " DEFINE LOGGING MONITOR EVENTS 0.0-9"
$ WRITE NETCONFIG$FILE " DEFINE LOGGING MONITOR EVENTS 2.0-1"
$ WRITE NETCONFIG$FILE " DEFINE LOGGING MONITOR EVENTS 4.2-13,15-16,18-19"
$ WRITE NETCONFIG$FILE " DEFINE LOGGING MONITOR EVENTS 5.0-18"
$ WRITE NETCONFIG$FILE " DEFINE LOGGING MONITOR EVENTS 128.0-4"
$ CLOSE NETCONFIG$FILE
$
$ :
$ : Ask user if he wants to do it
$ :
$ IF NO PROMPT THEN GOTO DO_DECNET_SETUP
$ TYPE SYSSINPUT
$
$ :
$ : Here are the commands necessary to setup your system.
$ :
-----
$ TYPE/PAGE SYSSMANAGER:NETCONFIG.TMP
$ TYPE SYSSINPUT
-----
$ IF FOUND_DATALINK .EQ. 0 THEN -
$ : WRITE SYSSOUTPUT "WARNING: no lines have been defined."
$ INQUIRE REPLY "Do you want to go ahead and do it? [YES]"
$ IF REPLY .EQS. "" THEN REPLY = "YES"
$ IF .NOT. REPLY THEN GOTO NO_CHANGES
$DO DECNET SETUP:
$ @SYSSMANAGER:NETCONFIG.TMP
$ IF NO PROMPT THEN GOTO EXIT
$ TYPE SYSSINPUT

```

The changes have been made.



If you have not already installed the DECnet-VAX license, then do so now.

After the license has been installed, you should invoke the procedure SYSSMANAGER:STARTNET.COM to startup DECnet-VAX with these changes.

```

$ REPLY = P5
$ IF REPLY .NES. "" THEN GOTO TEST_STARTNET
$ INQUIRE REPLY -
    "(If the license is already installed) Do you want DECnet started? [YES]"
$ IF REPLY .EQS. "" THEN REPLY = "YES"
$ TEST_STARTNET:
$ IF .NOT. REPLY THEN GOTO NO_STARTNET
$
$      Connect CNDRIVER if it hasn't been done already.
$
$ IF FOUND PA .NE. 2 THEN GOTO START_NETWORK
$ RUN SYSSSYSTEM:SYSGEN
CONNECT CNAO /NOADAPT /DRIVER=SYSSSYSTEM:CNDRIVER.EXE
$START_NETWORK:
$ @SYSSMANAGER:STARTNET
$NO_STARTNET:
$ IF FOUND CI .EQ. 0 THEN GOTO EXIT
$ TYPE SYSSINPUT

```

You will have to define a circuit for each VAXcluster node to which you will be making DECnet connections using the CI. Do this by specifying each node's CI port address as a tributary number. For example, to create circuits to the nodes having CI ports 1 and 2, enter the following commands:

```

NCP> DEFINE CIRCUIT CI-0.1 STATE ON TRIBUTARY 1
NCP> DEFINE CIRCUIT CI-0.2 STATE ON TRIBUTARY 2

```

Also, be sure you have added the commands

```

RUN SYSSSYSTEM:SYSGEN
SYSGEN> CONNECT CNAO /NOADAPT /DRIVER=SYSSSYSTEM:CNDRIVER.EXE

```

to your site-specific startup command procedure prior to calling STARTNET.COM.

```

$ GOTO EXIT
$
$NO_CHANGES:
$ WRITE SYSSOUTPUT 'No changes have been made.'
$EXIT:
$ IF FSLOGICAL('NETCONFIG$SHOWDEV') .NES. "" THEN -
    CLOSE NETCONFIG$SHOWDEV
$ IF FSSEARCH('SYSSMANAGER:SHOWDEV.TMP') .NES. "" THEN -
    DELETE /NOLOG SYSSMANAGER:SHOWDEV.TMP;*
$ IF FSLOGICAL('NETCONFIG$FILE') .NES. "" THEN -
    CLOSE NETCONFIG$FILE
$ IF FSSEARCH('SYSSMANAGER:NETCONFIG.TMP') .NES. "" THEN -
    DELETE /NOLOG SYSSMANAGER:NETCONFIG.TMP;*
$ PREV_PRIVS = FSSETPRV(PREV_PRIVS)
$ EXIT
$
$NO_PRIVILEGES:
$ WRITE SYSSOUTPUT 'Insufficient privileges to run this procedure.'
$ WRITE SYSSOUTPUT 'Requires ',REQUIRED_PRIVILEGES,' privileges.'
$ GOTO NO_CHANGES
$
$MISSING_TOOLS:
$ WRITE SYSSOUTPUT 'The utilities required for this procedure cannot be found.'

```



AUTOGEN LIS

NETCONFIG LIS

STARTUP LIS

SWAPFILES LIS

TRANSERR LIS

MAKEROOT LIS

SHUTDOWN LIS

SPKITBLD LIS

UMSINSTAL LIS

UMSUPDTE LIS

VMSINSTAL MEM