Instructor Lesson Guides

for

PC-TCP/IP
BOOTP and NFS Analysis

Prepared for

HQ AFMC/CIXR
Wright-Patterson AFB, Ohio 45433

April 15, 1994

Prepared by

Battelle Dayton Operations
5100 Springfield Pike
Dayton, Ohio 45431

Submitted by

SIDAC
5100 Springfield Pike
Dayton, Ohio 45431
Instructor Lesson Guides for PC-TCP/IP BOOTP and NFS Analysis

Tittl, Marty

Battelle
5100 Springfield Pike Suite 219
Dayton, Ohio 45431-1262

HQ AFMC/CIXR
4225 Logistics Avenue Suite 11
Wright-Patterson AFB, Ohio 45433-5750

Approved for public release; distribution is unlimited

This manual documents a data communications technical analysis as an instruction guide to data communications networking.
PC-TCP/IP
BOOTP and NFS
Analysis

FOR SIDAC TASK 006
Contract Number F33657-92-D-2055

Submitted to:
Department of the Air Force
Sacramento Air Logistics Center (SM-ALC/FMDD)
McClellan Air Force Base, CA 95652-5990

Submitted by:
Battelle Memorial Institute
5100 Springfiled Pike Suite 219
Dayton, Ohio 45431-1231
(513)-258-6756

14 January 1994
This report is a work prepared for the United States Government by Battelle. In no event shall either the United States Government or Battelle have any responsibility or liability for any consequences of any use, misuse, inability to use, or reliance upon the information contained herein, nor does either warrant or otherwise represent in any way the accuracy, adequacy, efficacy, or applicability of the contents hereof.
Foreword

The following document is provided as an addendum to the PC-TCP/IP Installation and Configuration Guide prepared by SM-ALC/FMDD. This information provides insight into the Bootp and Network File System (NFS) options of the Frontier SuperTCP PC-TCP/IP software application.
If the Bootp and NFS options are selected for installation, the following screens will appear during the install process. The information provided is an example of the data that will be required to successfully complete this portion of the install process.

During the initial installation and configuration of the TCP/IP software, the user will not be able to specify the Bootp option. The assigned TCP/IP address will need to be put in. After the install is completed the user may re-enter the Setup program by double clicking on the Setup TCP icon in the SUPERTCP program group.

From the SuperTCP/NFS for Windows, Version 3.00 R1 dialog box, doubleclick on the Minimal Configuration option and the Super-TCP Minimal Configuration dialog box will be displayed.

Doubleclick on the Advanced option and the Hostname dialog box will appear.

Doubleclick on the Subnetwork Setup option and the SubNetwork Address Mapping dialog box will appear.

    In the IP Address Type field click on the Bootp option and fill in the appropriate information on the following lines.

Note that the information provided is for example only. Get the necessary information from the Network System Administrator.
Bootp Server Address 137.243.50.3

This is the address of the host that contains the specific Network information for your PC.

Bootp Server Name megan

This is the actual name of the host that will provide the network information.

IP Address Mask 255.255.254.0

This is the subnet mask that the local network utilizes.

Click the OK button to enter the data.

Click the OK or DONE buttons (whichever is presented on the dialog box) as you back out of the setup program.

Reboot the computer to request network booting information from the bootp host.

The Installation is completed for the Bootp option.
The following procedures outline the NFS installation and configuration for the SuperTCP/NFS for Windows, Version 3.00 R1 software application.

**NOTE**

The NFS option illustrated here is NOT included in the Desktop IV software package. This software was bought commercially off the shelf and included the NFS information. The Government version of Super-TCP is identical in with the version available off the shelf, but the government negotiated a NO NFS application when they requested bids under Desktop IV competition. The government is now negotiating with the Desktop IV office and Frontier to add the NFS option to the Select Line Item Numbers (SLINs) under Desktop IV. Since there is a good possibility that the NFS option will be added, it was deemed important to investigate the advantages it may provide in file sharing, etc.

This particular example illustrates the configuration of the NFS software after the initial installation of the software package. During the actual install process, the information will look identical to the information presented.
The configuration of the NFS option is relatively simple.

You must enable the NFS Server and Client options. This will permit mounting other users' harddrives and vice-versa.

Enabling the NFS Server and Client consists of clicking on the box provided by each name in the dialog box and clicking on the OK button.

Additional information may be configured in the Options option for the Server and the Client, but it is not necessary. The default information is adequate.

Reboot the computer when you are through to initiate the NFS capability.
The autoexec.bat file will need to be modified to contain the **nfsinit** command in the SuperTCP area.

The following is what the autoexec.bat and config.sys files should look like when configuration is properly completed.

**AUTOEXEC.BAT**

```batch
@ECHO OFF
LH /L:1,13984 C:\DOS\share.exe /f:4096 /l:25
LH /L:0,1,42384 /S C:\DOS\SMARTDRV.EXE
PROMPT $p$g
PATH
C:\EXCEL;C:\WINWORD;C:\WINDOWS;C:\DOS;C:\WINDOWS\PACKRAT;C:\WINBAS
E:\temp;c:\supertcp
SET TEMP=C:\DOS
rem WIN :
LH /L:1,6400 doskey
REM Frontier Begin Modifications
SET PATH=%PATH%;C:\SUPERTCP
SET SUPERTCP=C:\WINDOWS\SUPERTCP.INI
c:\supertcp\netbind
C:\SUPERTCP\nfsinit
REM Frontier End Modifications
```

**CONFIG.SYS**

```text
DEVICE=C:\DOS\HIMEMS.SYS
DEVICE=C:\DOS\EMM386.EXE NOEMS HIGHSCAN X=C300-C9FF WIN=ED00-FFFF
WIN=EA00-ECFF
BUFFERS=15,0
FILES=45
DOS=UMB
LASTDRIVE=E
FCBS=16,0
DEVICEHIGH /L:1,12048 =C:\DOS\SETVER.EXE
DOS=HIGH
STACKS=9,256
DEVICEHIGH /L:1,16352 =C:\PCTG30\ASYNDRVR.SYS NAME=ASYNC4, PORT=4
device=c:\supertcp\protman.dos /i:c:\supertcp
DEVICEHIGH /L:1,5504 =C:\SUPERTCP\STCPNDIS.DOS
DEVICEHIGH /L:1,22736 =C:\SUPERTCP\SMCMAC.DOS
```