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COMPUTER NETWORK INTRODUCTORY GUIDE

prepared for

**AGENCY FOR INTERNATIONAL DEVELOPMENT
AFRICA BUREAU
MARKET DEVELOPMENT AND INVESTMENT**

by

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1. OVERVIEW

1.1 Introduction

The Agency for International Development, Africa Bureau, Market Development and Investment's (MDI) commitment to providing timely and effective services can only be accomplished if the office itself operates in this manner. MDI must maximize and share the available computer resources to support the functions necessary to manage its administrative and program operations. To help accomplish this, MDI has a fully operational integrated computer network that links and shares the computer resources contained in its headquarters.

The purpose of this guide is to provide users of the MDI network a technical overview of the network; a description of how to perform basic communications, printing, and administrative functions within the network; and up-to-date documentation for the hardware inventory, network menus, and physical location of network equipment. This guide is intended to be an introduction of how to perform basic operational functions on the network. More extensive operations with WordPerfect, Lotus, FoxBase, and other network application software depends on the knowledge and expertise of each of the network users. A discussion of each of the above topics can be found in the following chapters:

- *Chapter 2. Communications*—provides a description of how to dial-in to the network, dial-out from the network, and use the docking station.
- *Chapter 3. Printing*—provides descriptions of how to use network printers within MDI's core administrative support software packages of WordPerfect, Lotus, and FoxBase.
- *Chapter 4. Adding New Users*—describes how MDI's system administrator should perform functions related to adding new users to the network, WordPerfect Office, and the Communications Server.
- *Chapter 5. Tape Backup Procedures*—describes the procedure necessary to properly backup files on the network file server to external tape.

The remainder of this chapter provides a technical overview of MDI's network.

1.2 Technical Overview

MDI's computer network consists of more than six IBM-compatible personal computers on a local area network (LAN) supporting more than 13 users. The LAN allows users the ability to share resources such as printers and data. The network allows remote site processing from MDI's Africa locations and other work sites around the country through a dedicated communications server contained with the LAN.

The MDI computer network uses the Novell Netware version 2.15 LAN operating software. It uses an ARCNET local area network technology characterized by a 2.5 mb/sec throughput and token passing access. ARCNET is a proven technology developed more than 10 years ago. It is known for its rock-solid reliability. It is also the lowest cost per user of the most popular baseband technologies in use today. ARCNET operates using an easy-to-install, easy-to-expand-and modify distributed star topology with twisted pair cables. MDI's network contains one active twisted pair hub that can support 16 direct connections. MDI has 13 cabled data ports available. Most cabling is contained within the walls along with the telephone system cabling. Connection to the network is accomplished simply through an RJ11 connection to a cable on the wall of the room. Further expansion of the network is easily accomplished through the addition of more workstations and should not require any additional cabling to the workstation site.

The MDI network supports a wide variety of application software. Application software is accessed through standardized menus. No matter which workstation is used, the user sees and works with the same set of menus to access programs and data on the network. MDI uses a fully integrated office mail system through WordPerfect Office. Other standard corporate software includes Network WordPerfect 5.0, Network Lotus, and FoxBase. Additionally, the network contains fully automated systems for

tracking investment opportunities and matching potential investors. Numerous customized software and programming languages are available to support specific MDI needs and applications.

MDI's network is fully operational 24 hours a day, 7 days a week. The individual user workstations range in processing capability from those equivalent to an IBM PC/XT to the most powerful 386 processors available. The file server is a 286-based processor. MDI's workstation inventory includes one 8088 workstation, four 286 workstations, and one 386 workstation. The storage capacity of the file server is 147 megabytes, or more than 140 million characters of storage. Additionally, a large number of the workstations have local hard-disk storage, ranging from 20 million bytes to 40 million bytes. Data are backed up each night to a high-speed tape cartridge. Dial-in and dial-out communications are fully supported and integrated into the LAN.

MDI's network supports one laser printer, a wide carriage dot matrix printer, and a graphics printer for the highest quality print production available on the market today. Although the printers are located within the facility to maximize production, each printer is fully accessible by any user on the network regardless of location.

Security of information is accomplished in a number of ways. The network contains access security with varying degrees of user access to information, depending on a "need to know" basis. Full passwords and rights to information are implemented. Additionally, certain applications support additional levels of security. Finally, the system is monitored on a full-time basis by a network system administrator. The system administrator establishes passwords, rights to information, user access, and the configuration of the network.

2. COMMUNICATIONS

2. COMMUNICATIONS

2.1 Introduction

The MDI network has the capability to communicate with external users in several ways. An authorized network user can communicate from outside of the network through a dial-in capability. Authorized network users can also dial-out from within the network. Finally, a network user can physically connect a properly equipped laptop computer to the network through the network docking station.

How to use each of the communications capabilities is discussed in the following sections:

- 2.2 Dial-In Communication
- 2.3 Dial-Out Communication
- 2.4 Docking Station Communication

To effect any of the subsequent topics, it is obvious that all the equipment be connected to an electrical outlet and turned on.

2.2 Dial-In Communication

Dial-in communications is accomplished through the use of a remote computer to host computer communication approach. The dedicated remote to host workstation approach is designed to provide users the ability to login to the network from remote sites. In the subsequent discussion, the MDI host computer workstation will be referred as the "host WS" and the remote site computer workstation will be referred to as the "local PC." The following requirements must be implemented before a remote user can login:

- The local PC must use the Carbon Copy Plus Communications software.

- The local PC must use a Hayes-compatible modem.
- The remote user must be set up as an authorized user before logging onto the MDI network system.

To connect to the dedicated host WS, the Carbon Copy software on the remote PC must be configured with the following communications parameters:

- Baud Rate should be 2400.
- Modem Type should be Hayes.
- Dial Time Out should be set for 3 minutes for international direct calling.

The telephone number for the local PC to dial into is (202) 647-8418. The Inactivity Time Out parameter on the host WS is currently set to 15 minutes. This parameter defines how many minutes Carbon Copy Plus will remain active if no activity is performed on the line, such as a DIR at the "C>" prompt. Once the limit has been reached, Carbon Copy Plus will disconnect and reconfigure the line.

A typical step-by-step example of using Carbon Copy Plus on the local PC is as follows:

1. Change to the directory where Carbon Copy software is located using the DOS directive "CD \(\DESIRED_SUBDIRECTORY)."
2. Type "CHELP" and press <ENTER>.
3. Press <F1>.
4. Type "9,2026478418" and press <ENTER>.
5. Type "CC" and press <ENTER>.

After completing the above steps, the local PC will be connected to the host WS. The local PC now is in control of the host WS. The user simply types "NET" and presses <ENTER> to get into the network login procedure.

Upon completing the session, the user logs off the network as usual. To disconnect the two modems, the user completes these steps:

1. Press <F1><ENTER>.
2. Press <F10>.

For more information on how to configure and use Carbon Copy Plus, the user should refer to the Carbon Copy Plus manual that can be obtained from the system administrator.

2.3 Dial-Out Communication

Dial-out communication is accomplished through the use of a network-supported communications server approach, which allows each user of the network access to an outgoing modem. The Network Asynchronous Communications Server (NACS) is designed to provide users the ability to call out from their workstations to any bulletin board service (that is, *The Source*, *Dow Jones News Service*, and so on) or outside data services. It also provides modem resource sharing on the network. The following requirements must be implemented for the user:

- The user must be set up as an LAN user on the network before trying to login to the system.
- The user must be set up as a Network Communications user on the network before they can access the communications software (PROCOMM).

To connect to the access of the NACS, the user must perform the following procedure:

1. Boot the workstation and login to the network as usual.
2. Once at the main menu, press <ESC>.
3. Type "1" and press <ENTER>.

4. Press <ENTER>.

At this point, the user should be connected to the network modem and can dial into outside computer systems. To access the outside services computer, the user now must establish a connection to the remote computers modem. Without getting too technical at this point, there are some communications parameters that the network modem and remote services modem must agree on. The following is a list of the main parameters that will most effect the ability of the two modems to communicate:

<i>Description</i>	<i>Default Setting</i>	<i>Other</i>
1. Baud Rate	1200 bps	2400, 4800, 9600
2. Parity	None	Odd, Even
3. Stop Bit	1	None, 1.5, 2
4. Duplex	Full	Half
5. Protocol	None	Xmodem, Kermit...
6. Terminal	ANSI	VT-100, VT-52...

For most applications, the default settings will work and the user will not have to change these parameters. Should users need to, they should refer to the PROCOMM Plus manual on how to change the settings.

Assuming that the modems agree on these settings, the next step would be to call the remote computer and get on line. The following procedure does this:

1. Press <ALT><Z>.
2. Press <M>.
3. Type the number you want to dial.
4. Press <ENTER>.

At this point, the user should have established a connection between his or her network workstation and the outside service. The user is now typically prompted through the login procedure at the remote computer. Because each service varies its login procedure, no specific information can be given the user on this subject. The user should just enter the information requested by the bulletin board service as they are prompted.

For a good example on how to establish a connection to a remote system, the user is referred to Chapter 2 of the PROCOMM Plus manual that can be obtained from the system administrator.

2.4 Docking Station Communication

The docking station is designed to provide those individuals who have laptop computers the ability to easily attach to the network. The following requirements must be available for the laptop user to attach to the network.

1. The user must be set up as LAN user on the network before trying to login on the system.
2. The user must have the correct IPX.COM file (IRQ=2, Base Memory Address = CCOOH), NET3.COM file, and the ZXSS.SYS hardware driver file on the laptop hard disk.
3. The Config.sys file must contain these statements:
 - FILES=20
 - BUFFERS=20
 - DEVICE=VDISK.SYS
 - DEVICE=ZXSS.SYS
4. The laptop itself must have the bus expansion unit attached to the back and be physically connected to the docking station.
5. The laptop must have the network login batch file, NET.BAT, in the root directory on the laptop's hard disk.
6. Once properly connected and booted, the laptop user types NET and presses <ENTER> to get into the network login procedure.

3. PRINTING

3.1 Introduction

This section is designed to assist the user in printing on the network. Printing files, programs, and databases from the network are a function of several variables. The most relevant variable to the user is the application software that is in use. This determines how the operator selects a printer for printing, the way fonts are selected, and the interface to the printer itself.

3.2 Lotus

The following discussion of using Lotus 123 is how many other application software packages (TimeLine, Harvard Graphics, and so on) also perform the print function. These software packages usually involve a menu system for invoking commands and have limited printer font and paper selection methods.

There are basically three general steps to printing. First, the user invokes the printer selection from the network menu item PRINTER CONTROL. Then the application and specific printer driver is selected. Briefly, a printer driver is the software that translates the print commands (such as designating fonts, controlling paper eject, form feeds, and so on) from the application software to the commands for the type of printer selected. The final step in this process is to issue the printout request.

Because Lotus is the main software application, the following example should help illustrate the procedure. It is assumed that the user has selected the Epson dot matrix printer from the network menu window and has retrieved a Lotus worksheet. At this point, the user selects the correct printer driver. If the user does not specify the Epson printer driver, Lotus assumes that the HP Laser Jet II D driver is to be used.

1. Type `"/WGDPN."`
2. Highlight the driver that matches the printer you want to print from using the `<→>` key and press `<ENTER>`.
3. Press `<ESC>` until you are out of the menu.

Now you need to invoke the printout. This is done under Lotus by typing `"/PP"` and then selecting the appropriate options under the printer menu.

To select different fonts and paper sizes from Lotus, a setup string is entered. Specific setup strings (called escape sequences in the printer manuals) can be ascertained by referring to the printer manuals that can be obtained from the system administrator.

3.3 WordPerfect

WordPerfect provides the most flexible means for printing documents. Unlike Lotus, the user does not have to select the printer from the network menu item `PRINTER CONTROL`. The user can select the printer from within WordPerfect. Another distinction is that the user does not have to specify the matching printer driver as the driver is predefined once the user selects the printer. Finally, fonts, paper size, and formats are more easily selected under WordPerfect.

The following is a step-by-step example of a basic printing session in WordPerfect.

Printing a document:

1. Retrieve a document to print in WordPerfect.
2. Press `<SHIFT><F7>`.
3. Press `<S>`.
4. Use the `<↑>` or `<↓>` keys to highlight the desired printer and press `<ENTER>`.
5. Press `<1>`.

A special note should be made for selecting fonts and paper size. WordPerfect inserts printer control codes in the document at the current cursor position. This means that if the cursor is not located at the top of the document, then printouts will vary in font and paper size, depending on the current cursor location.

Selecting a font:

1. Press <CONTROL><F8>.
2. Press <4>.
3. Use the <↑> or <↓> keys to highlight the desired font and press <ENTER>.

Selecting the paper size:

1. Press <SHIFT><F8>.
2. Press <2>.
3. Press <8>.
4. Press the corresponding number of the paper size desired.
5. Press the corresponding number of the paper type desired. Usually, this will be "Standard."
6. Press <ESC>.
7. Press <ESC>.

Normally, the user will want to have his or her entire document printout in either letter or legal size paper. The default is set to letter size if the paper size is not selected. To facilitate setting up the entire document in legal, a macro has been created that defines the document as legal size. To invoke this macro, the user must simply do the following:

1. Press <ALT><F10>.
2. Type "LGL" and press <ENTER>.

3.4 FoxBase and FoxBase Automated Systems

FoxBase and FoxBase automated systems are similar to printing out in Lotus. The user must still select the printer in the network menu PRINT CONTROL and must use setup strings. The main difference is that FoxBase does not support printer drivers. Rather, FoxBase applications require the programmer to detail when output is to be redirected from the screen to the printer, determine page breaks, and to set coordinates for where items are to appear in the document.

A full discussion of how the printing is accomplished is beyond the scope of what this guide is designed to cover. It is sufficient to say that the automated FoxBase systems have been set up to provide the necessary printing capabilities. For a more complete description of how to printout using FoxBase, the user can refer to either the Dbase III or FoxBase manuals. These manuals can be obtained from the system administrator.

4. ADDING NEW USERS

4.1 Introduction

This section is designed to assist the system administrator in the function of adding new users to the network. Three phases are involved in allowing a new user access to all the capabilities of the network. The three setup procedures are discussed below. Please note that these same procedures can be applied (with slight modifications as to the keys pressed) in reverse order to delete a user.

4.2 Novell System

Adding new users is easily accomplished using the Novell system utility program SYSCON. The following procedure details the steps necessary in adding a new user:

1. Login as "SUPERVISOR."
2. Use the <↓> key to highlight "System Configuration" and press <ENTER>.
3. Use the <↓> key to highlight "USER INFORMATION" and press <ENTER>.
4. Press the <INSERT> key and proceed to enter the unique login name for the new user. At this point, it is critical that the first 3 characters of the login name be unique for each user on the system. The reason that these letters be unique is not a requirement of Novell, but has to do with setting up a user in WordPerfect Office.
5. Press <ENTER>.
6. Use the <↓> key to highlight "FULL NAME" and press <ENTER>.
7. Proceed to enter the user's full name.
8. Press <ENTER>.
9. Use the <↓> key to highlight "GROUPS" and press <ENTER>.
10. Press the <INSERT> key and proceed to select an appropriate group designation. By specifying a user in a group, the system

administrator's function of designating access rights to directories and resources is easier. The system administrator only needs to designate access and resource rights to the group names.

11. Use the <↓> key to highlight "PASSWORD" and press <ENTER>.
12. Type in the desired password and press <ENTER>.
13. Type in the same password and press <ENTER>.
14. Use the <ESC> key to back out all the way out of the Novell menu.
15. Type "MAP L:=FS1/SYS:\USERS" and press <ENTER>.
16. Type "MD", the login name assigned in step 4 above, and then press <ENTER>.
17. Type "CD", the login name, and press <ENTER>.
18. Type "MD WP" and press <ENTER>.
19. Type "MD LOTUS" and press <ENTER>.
20. Type "MD DBASE" and press <ENTER>.
21. Type "MD HG" and press <ENTER>.
22. Type "MAP L:=" and press <ENTER>.
23. Type "MENU MAIN" and press <ENTER> to return to the main menu.

4.3 WordPerfect Office Mail

At this point, the new user has been entered into the LAN Network. This means that the person can use all the application software on the network with the exception of WordPerfect Office Mail and the Network Communications Server.

The system administrator must now set up the person in WordPerfect Office Mail. Here is the step-by-step procedure for accomplishing this:

1. Press <ESC> until you are at the "F:\PUBLIC" prompt.
2. Type "MAP L:=FS1/SYS:PROGS\WPOFFICE" and press <ENTER>.

3. Type "L:" and press <ENTER>.
4. Type "FLAG USERID.NB SRW" and press <ENTER>.
5. Type "FLAG USERID.FIL SRW" and press <ENTER>.
6. Type "NB USERID" and press <ENTER>.
7. Press the <INSERT> key and proceed to enter the appropriate information in each of the fields for the new user's WordPerfect Office Mail record.
8. When you have filled in the fields, type "y" to save the record and press <ENTER>.
9. Type "y" to replace the userid file and press <ENTER> to return to the prompt "L:\PROGS\WPOFFICE>."
10. Type "USERID.EXE" and press <ENTER>.
11. Type "NCOPY USERID.NB MANAGER\USERID.NB" and press <ENTER>.
12. Type "NCOPY USERID.NB MANAGER\USERID.FIL" and press <ENTER>.
13. Type "FLAG USERID.NB SRO" and press <ENTER>.
14. Type "FLAG USERID.FIL SRO" and press <ENTER>.
15. Press <ESC> twice to get back to the "F:\PUBLIC>" prompt.
16. Type "MAP L:=" and press <ENTER>.
17. Type "MENU MAIN" and press <ENTER> to return to the main menu.

4.4 Network Communications Server

The following is the step-by-step procedure for setting up a user for the Network Communications Server.

1. Login as "SUPERVISOR."
2. Press <ESC> until you are at the "F:\PUBLIC>" prompt.
3. Type "MAP L:=FS1/SYS:NASIAPPS" and press <ENTER>.
4. Type "L:" and press <ENTER>.
5. Type "INSTAPPS" and press <ENTER>.

6. Use the <↓> key to highlight "Modify Product Users" and press <ENTER>.
7. Press <INSERT>.
8. Move the cursor up or down until the user you want to add is highlighted and press <ENTER>.
9. Press <ESC> twice to get back to the "F:\PUBLIC" prompt.
10. Type "MAP L:=" and press <ENTER>.
11. Type "MENU MAIN" and press <ENTER> to return to the main menu.



5. TAPE BACKUP PROCEDURES

5.1 Introduction

This section describes two procedures for implementing a timed backup of the file server.

5.2 Tape Backup

The 150 Mb tape backup system is installed on a 386 workstation (Tag No. 00080). Currently, it is configured to perform the backup of the entire file server at 7:00 a.m. To activate a timed backup, the system administrator may perform either one of the following procedures:

Procedure 1:

1. Login to the network.
2. Press <ESC> to get to the "F:\PUBLIC>" prompt.
3. Type "C:" and press <ENTER>.
4. Type "CD \MTN_TAPE" and press <ENTER>.
5. Type "AUTORUN" and press <ENTER>.

Procedure 2:

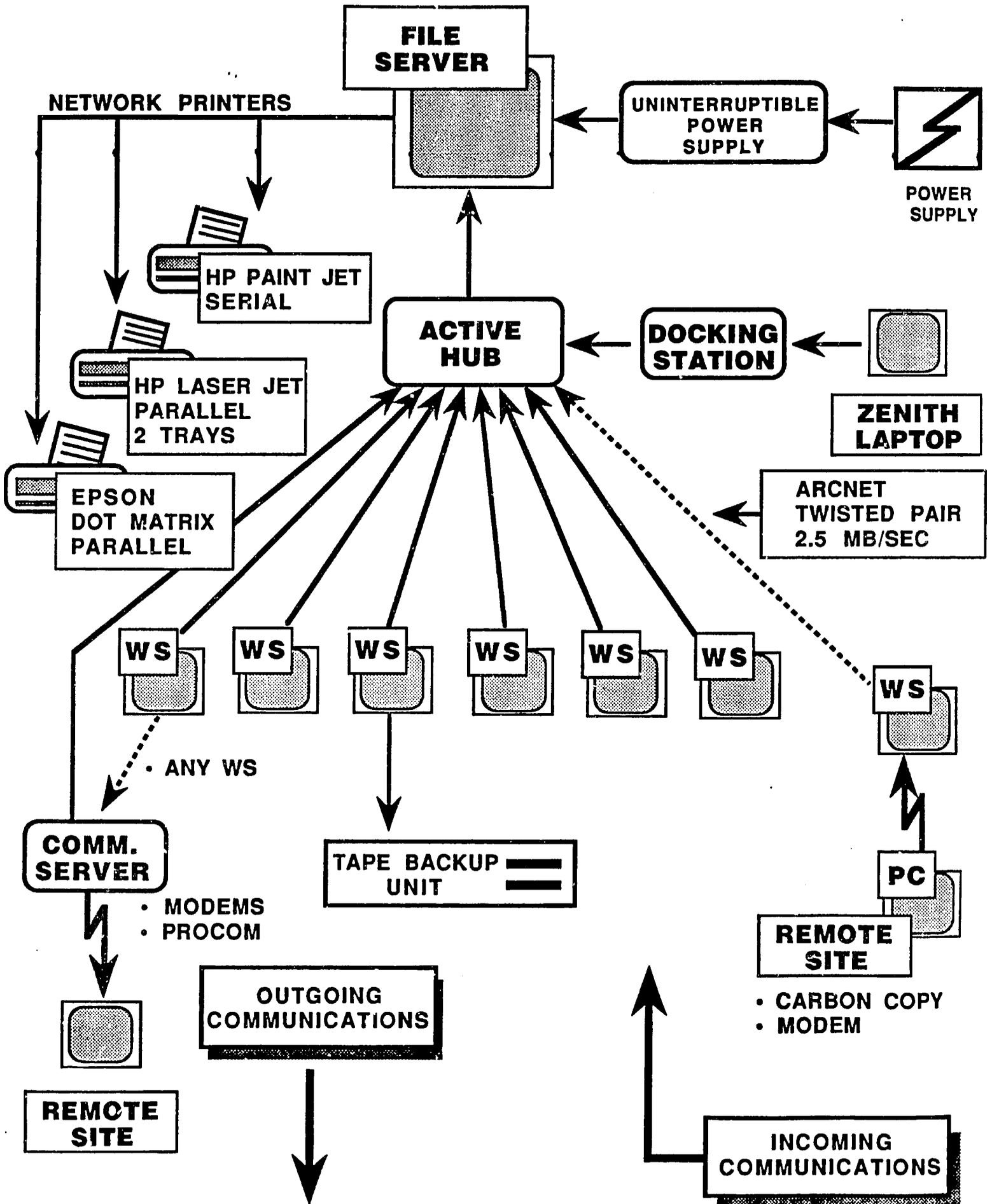
1. Login to the network.
2. Use the <↓> key to highlight "UTILITIES" and press <ENTER>.
3. Use the <↓> key to highlight "NETWORK UTILITIES" and press <ENTER>.
4. Press <ENTER>.

To change the time in which the backup should occur, the user can follow the procedures on pages 39 through 41 of the Mountain Tape User's Guide. These manuals can be obtained from the system administrator. For

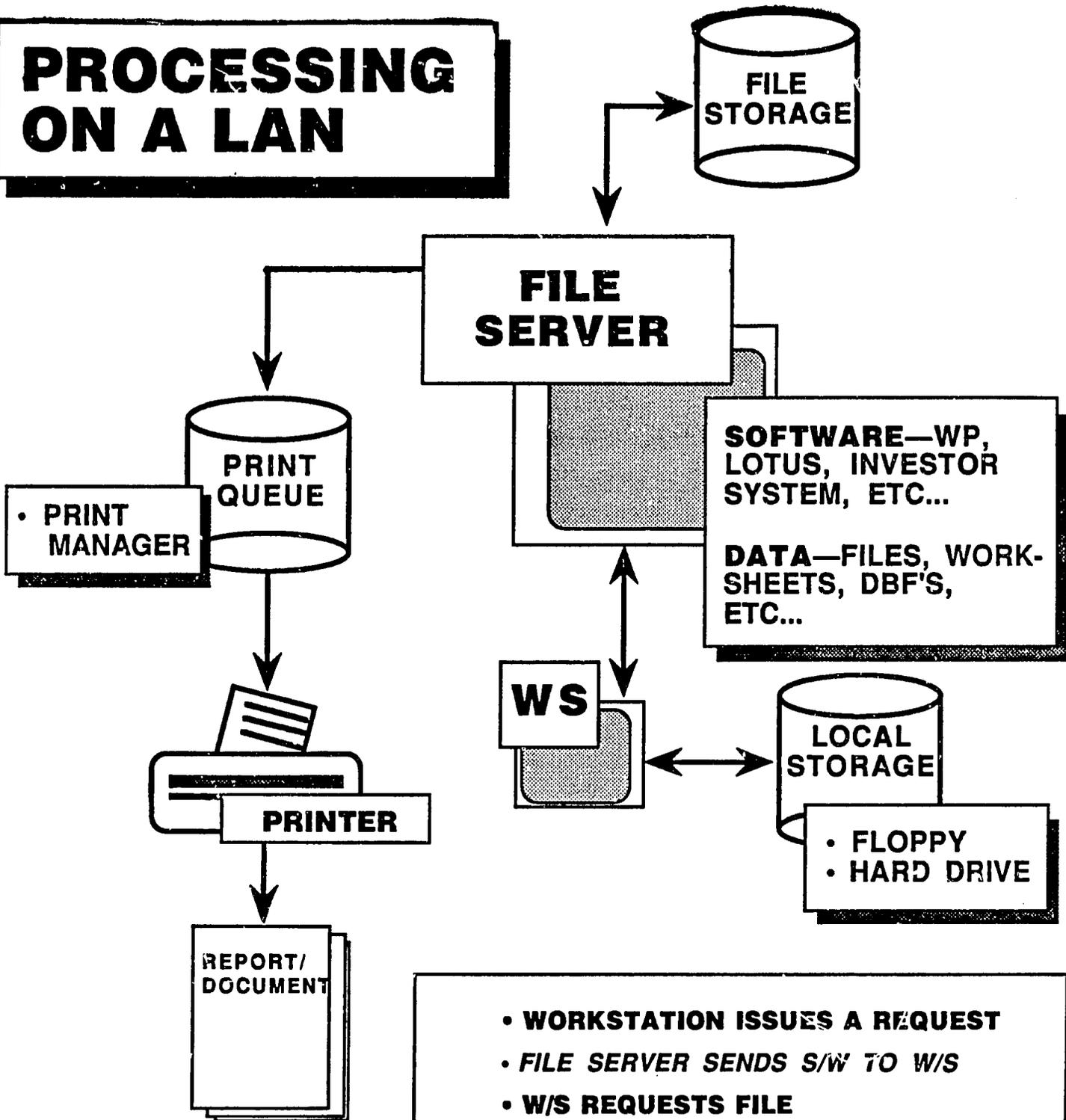
restoring files, the user should refer to pages 27 through 32 of the same manual on the correct procedure.

APPENDIX A
MDI LAN SCHEMATICS

MDI LAN



PROCESSING ON A LAN

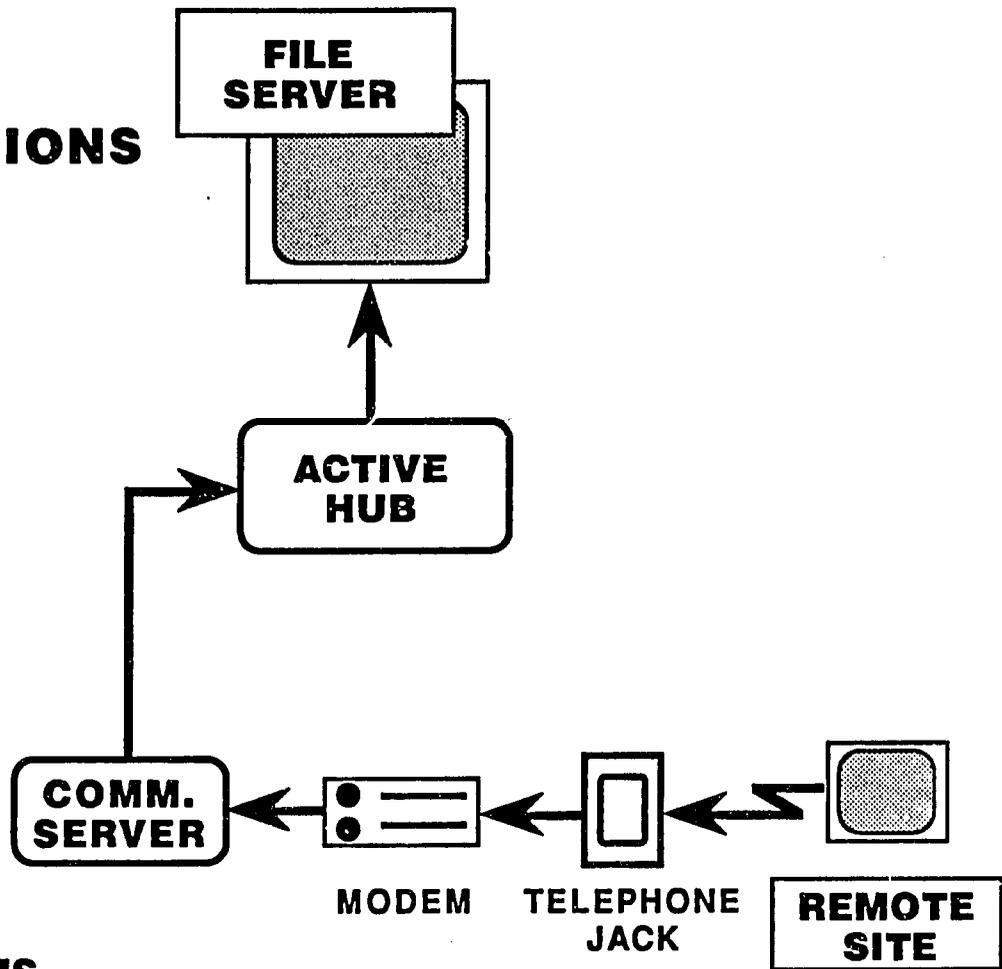


HOW FAST SOMETHING IS PROCESSED IS A FUNCTION OF THE WORK STATION!

- WORKSTATION ISSUES A REQUEST
- FILE SERVER SENDS S/W TO W/S
- W/S REQUESTS FILE
- F/S SENDS FILE
- W/S DOES ALL PROCESSING
- W/S ISSUES A FILE UPDATE REQUEST
- F/S UPDATES FILE
- W/S SENDS SOMETHING TO PRINT
- F/S SENDS SOMETHING TO PRINT
- F/S SENDS TO PRINT QUEUE
- P/Q SENDS TO PRINTER

MDI COMMUNICATIONS SERVER

- **OUTGOING COMMUNICATIONS**



- **TRAFFIC COP FOR MODEM**

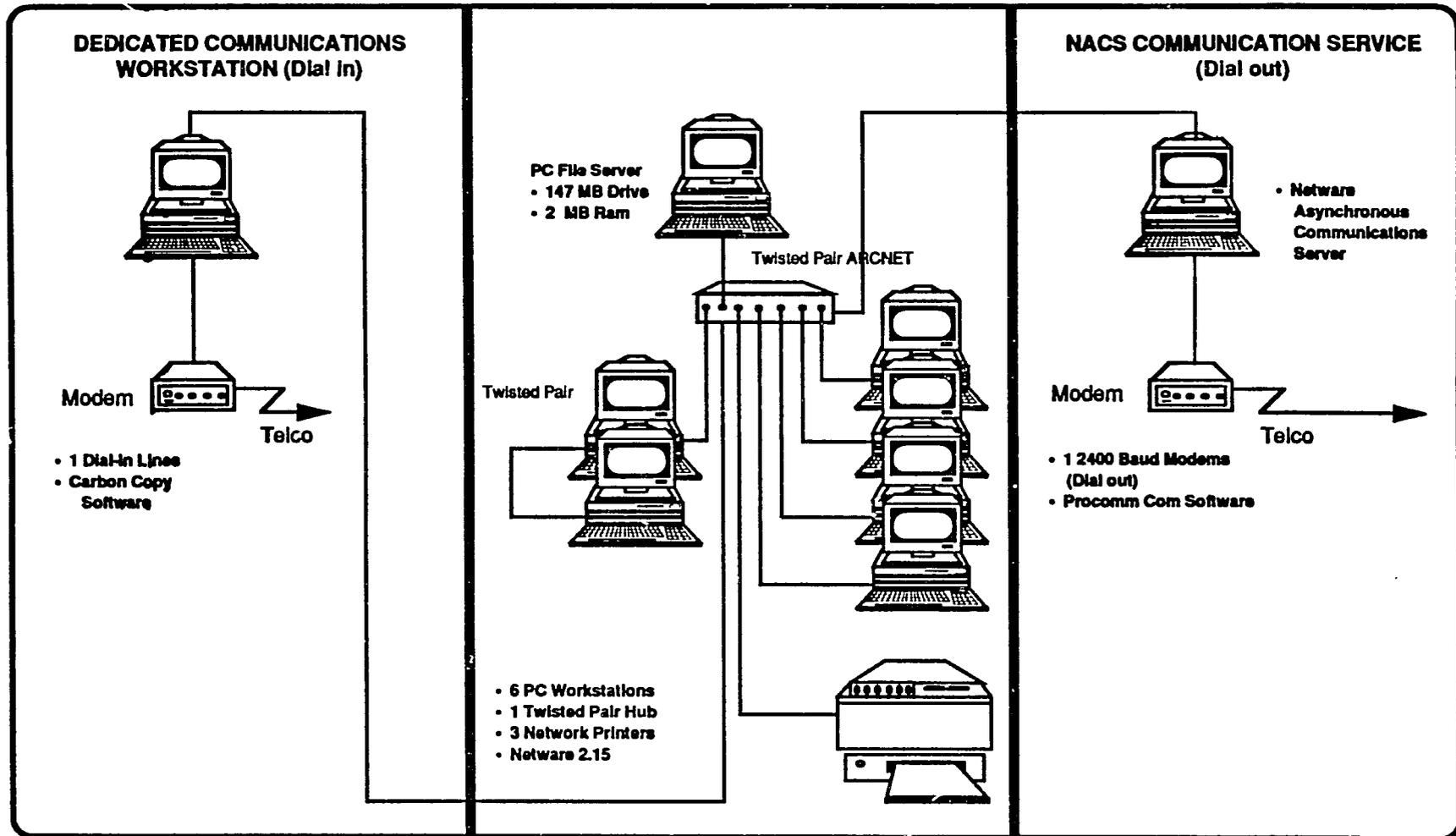
- **UP TO 4 MODEMS**

- **1200/2400 BPS**

- **NACS/ASCOM IV OR PROCOM**

R2

Agency for International Development, Africa Bureau Market Development and Investment Local Area Network



ARCNET TWISTED PAIR CONNECTIONS

- File Servers to HUBS
- 9 Active Connections
- 16 Connections Available
- Expansion Capability to 255 Connections
- 1 Laptop "Docking Station"

AUTOMATED SYSTEMS

- Registry of Consultants
- AFR Investors

APPLICATION SOFTWARE

- Network LOTUS
- WordPerfect Office
- WordPerfect 5.0
- Timeline
- Dbase IV
- Harvard Graphics
- MICRODISC
- FoBase

OTHER FEATURES

- Multi-Level Password Protection
- Novell/Trustee Assignments
- Full Backup Each Day
- Operational 24 hrs/day, 7 days/week
- Electronic Mail System

APPENDIX B
MENUS

25


```

MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM;
:11111111111 ZDDDDDDDDDDDDDD? 1111111111:
:22222222222 3 NACS MENU 3 2222222222:
:CCCCCCCCCCCC @DDDDDDDDDDDDDDY CCCCCCCCCC:
LMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM9
:
: 1. DIAL OUT COMMUNICATONS :
:
: 2. Return to Main Menu :
:
: 3. :
:
: 4. :
:
: 5. :
:
: 6. :
:
: 7. :
:
: 8. :
:
MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM<

```

F:\PUBLIC>


```
Write "Good %GREETING_TIME, %LOGIN_NAME !"
Write ""
Write "IF YOU HAVE ANY PROBLEMS, PLEASE CONTACT XXXXX at NNN-NNNN
      XNNN"
Write ""
#QT
Write ""
DOS SET WPC="/U-%LOGIN_NAME"
MAP DISPLAY OFF
MAP ERRORS OFF
MAP F:=SYS:PUBLIC
MAP G:=SYS:USERS/%LOGIN_NAME/WP
MAP H:=SYS:USERS/%LOGIN_NAME/LOTUS
MAP I:=SYS:USERS/%LOGIN_NAME/DBASE
MAP J:=SYS:USERS/%LOGIN_NAME/HG
MAP K:=SYS:SUPER
MAP S1:=SYS:MAIL
MAP S2:=SYS:PROGS/WP50
MAP S3:=SYS:PROGS/LOTUS
MAP S4:=SYS:PROGS/DBASE
MAP S5:=SYS:PROGS/HG
MAP S6:=SYS:PROGS/TL
MAP S7:=SYS:UTIL
MAP S8:=SYS:MENUS
MAP S9:=SYS:PUBLIC
MAP S10:=SYS:LOGIN
MAP S11:=SYS:SYSTEM
MAP S12:=SYS:USERS/%LOGIN_NAME/LOTUS
MAP S13:=SYS:DOS
IF "%LOGIN_NAME"="SUPERVISOR" THEN BEGIN
MAP L:=FS1/SYS:USERS/SUPERVISOR
EXIT "MENU MAIN"
END
EXIT "START.BAT"
```

START.BAT
ECHO OFF
CLS
MENU NEW
TYPE MENU.TXT

3/2/90

Page 1

35

%LAN MENU

1. APPLICATIONS

%APPLICATIONS

2. UTILITIES

%UTILITIES

3. LOGOUT

!LOGOUT

C:

CD\

C.BAT

%APPLICATIONS

1. WORDPERFECT 5.0

G:

F:\PROGS\WP50\WP.EXE

F:

CD\PUBLIC

2. LOTUS 123

F:

CD\PROGS\LOTUS

LOTUS.COM

CD\PUBLIC

3. TIMELINE

F:

CD\PROGS\TL

TL.BAT

CD\PUBLIC

4. dBASE IV

F:

CD\PROGS\DBASE

DBASE

CD\PUBLIC

5. HARVARD GRAPHICS

F:

CD\PROGS\HG

HG

CD\PUBLIC

6. WORDPERFECT OFFICE

F:

CD\PROGS\WPOFFICE

SHELL

CD\PUBLIC

7. MICRODISC

F:

CD\PROGS\MICRODIS

MICRODIS

CD\PUBLIC

8. FOX BASE

F:

CD\PROGS\FOX

MFOXPLUS CENTRAL

CD\PUBLIC

9. REGISTRY OF CONSULTANTS

F:

PATH=F:\PROGS\FOX;F:\PROGS\FOX\MDI

CD\PROGS\FOX\MDI

MFOXPLUS MDIM

CD\PUBLIC

A. AFR INVESTORS

F:

CD\PROGS\FOX
MFOXPLUS
CD\PUBLIC

%UTILITIES

1. PRINTER CONTROL

%PRINTER CONTROL

2. DOS UTILITIES

%DOS UTILITIES

3. NETWORK UTILITIES

%NETWORK UTILITIES

%PRINTER CONTROL

1. HP LASERJET IID

MODE LPT1

SPOOL P2 NB NFF TI=1

2. Epson

MODE LPT1

SPOOL P1 NB FF TI=30 C=1

3. HP Paintjet

MODE LPT1

SPOOL P0 NB FF TI=30 C=1

%DOS UTILITIES

1. FORMAT 5 1/4" 360K

F:\DOS\FORMAT A:/4

2. FORMAT 5 1/4" 1.2MB

F:\DOS\FORMAT A:

3. FORMAT 3 1/2" 720K

F:\DOS\FORMAT B:

4. DISKCOPY

F:\DOS\DISKCOPY @1"Enter source drive" @2"Enter target drive"

5. COPY FILES

COPY @1"Enter source drive/filename" @2"Enter destination"

%NETWORK UTILITIES

1. BACKUP SYSTEM

C:

CD\MTN_TAPE

TAPE

F:

CD\PUBLIC

2. SUPERVISOR OPTIONS

%SUPERVISOR OPTIONS

3. CHANGE PASSWORD

SETPASS

%SUPERVISOR OPTIONS

1. Session Management

Session

2. File Management

Filer

3. Volume Information

VolInfo

4. System Configuration

SysCon

5. File Server Monitoring

FConsole

6. Print Queue Management

PConsole

7. Print Job Configurations

PrintCon

8. Printer Definitions

PrintDef

1.BAT

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```
echo off
cls
cd\progs\nasi
nasi
cd\progs\procomm
pcomnet
cd\util
type menu.txt
```

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```
J.BAT  
echo off  
cls  
cd\util  
start
```

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**APPENDIX C
HARDWARE INVENTORY**

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 LAN HARDWARE INVENTORY

```
*****
* LEGEND:MC = COLOR MONITOR      *
*      MM = MONOCHROME MONITOR   *
*      PTR = PRINTER             *
*      KB = KEYBOARD             *
*      PC = 8088 MICROPROCESSOR  *
*      AT = 80286 MICROPROCESSOR *
*      386 = 80386 MICROPROCESSOR*
*      MOD = MODEM               *
*      OTH = OTHER HARDWARE      *
*****
```

TAG NUMBER	CABLE NUMBER	DESCRIPTION	CODE	LOCATION	DISKETTE DRIVE A	DISKETTE DRIVE B	HARD DRIVE	VIDEO ADAPTER	RAM	ARCNET CARD	OTHER
	2231 (00135)	Samsung Monochrome Monitor	MM	Corridor FS							
N/A		1 Zenith Data Systems Expansion Bus	OTH	2941C							1 w/Power Supply
N/A		5 AST Premium/286	AT	2941F	1.2 Mb 5.25"	720 Kb 3.5"	21.3 Mb	EGA/VGA	1 Mb		1 1 Dual Port Coax Wang Card
N/A		IBM Personal Computer	PC	Corridor CS	360 Kb 5.25"	360 Kb 5.25"					1
N/A		Everex 24E+ Modem	MOD	Corridor CS							Hayes Compatible
N/A		11 Parallel Long Link	OTH	Corridor							HP LaserJet II D

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TAG NUMBER	CABLE NUMBER	DESCRIPTION	CODE	LOCATION	DISKETTE DRIVE A	DISKETTE DRIVE B	HARD DRIVE	VIDEO ADAPTER	RAM	ARCNET CARD	OTHER
N/A		12 Parallel Long Link	OTH	Corridor							Wang (EPSON 286) Dot Matrix Ptr
N/A		13 Serial Long Link	OTH	Corridor							HP PaintJet
	2224 (00132)	Hayes V Series Modem	MOD	Corridor							V.32
N/A		IBM PC Display (Monochrome)	MM	Corridor CS							
N/A		IBM 83 Keyboard (Monochrome)	KB	Corridor CS							
	2227 (00122)	Imtec 1453Q VGA Monitor	MC	2941G							
	2226 (00133)	AST 101 Keyboard	KB								
	2228 (00123)	4 AST Premium/286	AT	2941G	1.2 Mb 5.25"	720 Kb 3.5"	21.3 Mb	EGA/VGA	1 Mb	1	
N/A		AST Premium/286	AT	Corridor	1.2 Mb 5.25"						Remote to Host Communications Workstation
	2236 (00140)	6 AST Premium/286	AT	2941E	1.2 Mb 5.25"	720 Kb 3.5"	21.3 Mb	EGA/VGA	1 Mb	1	

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TAG NUMBER	CABLE NUMBER	DESCRIPTION	CODE	LOCATION	DISKETTE DRIVE A	DISKETTE DRIVE B	HARD DRIVE	VIDEO ADAPTER	RAM	ARCNET CARD	OTHER
2235 (00140)		Tatung Color Monitor	MC	2941E							
2237 (00078)		AST 101 Keyboard	KB	2941D							
2234 (00138)		AST 101 Keyboard	KB	2941E							
2225 (00121)	11	HP LaserJet II D	PTR	Corridor					640 Kb		S2 Font Cartridge
2238 (00077)		Tatung Color Monitor	MC	Corridor							
N/A	9	AST Premium/286	AT	Corridor	1.2 Mb 5.25"	720 Kb 3.5"		EGA/VGA	1 Mb		1
N/A		AST 101 Keyboard	KB	Corridor							
N/A		Thomas Conrad Active Hub	OTH	Corridor							16 Port Twisted Pair
2230 (00134)		AST Premium/286	AT	Corridor FS	1.2 Mb 5.25"	720 Kb 3.5"	148.2 Mb	? 2 Mb			1 File Server
N/A		Wang 101 Keyboard	KB	Corridor FS							
N/A		Thomas Conrad	OTH	2941B							

TAG NUMBER	CABLE NUMBER	DESCRIPTION	CODE	LOCATION	DISKETTE DRIVE A	DISKETTE DRIVE B	HARD DRIVE	VIDEO ADAPTER	RAM	ARCNET CARD	OTHER

		6045 ARCNET Card									
N/A		Zenith 8088 Laptop	PC	2941C	720 Kb 3.5"		21.3 Mb				1 Modem
N/A		Imtec 1430v VGA Monitor	MC	2941F							
N/A		AST 101 Keyboard	KB								
N/A		Wang Wide Carriage Dot Matrix Printer	PTR	2941F							
	1182 (00120)	13 HP PaintJet	PTR	Corridor							
N/A		12 Wang Wide Carriage Dot Matrix Printer	PTR								
	1191 (00080)	7 AST Premium/386C	386	2941D	1.2 Mb 5.25"	1.44 Mb 3.5"	42.86 Mb	EGA/VGA	1 Mb		1 1 Dual Port Wang Coax Card 1 150 Mb Mountain TBU
	1193 (00082)	Imtec 1453C VGA Monitor	MC	2941D							
	1192 (00081)	AST 101 Keyboard	KB	2941F							
N/A		Wang Wide Carriage	PTR	Corridor							

TAG NUMBER	CABLE NUMBER	DESCRIPTION	CODE	LOCATION	DISKETTE DRIVE A	DISKETTE DRIVE B	HARD DRIVE	VIDEO ADAPTER	RAM	ARCNET CARD	OTHER
	2231 (00135)	Samsung Monochrome Monitor	MM	Corridor FS							
N/A		1 Zenith Data Systems Expansion Bus	OTH	2941C							1 w/Power Supply
N/A		5 AST Premium/286	AT	2941F	1.2 Mb 5.25"	720 Kb 3.5"	21.3 Mb	EGA/VGA	1 Mb		1 1 Dual Port Coax Wang Card
N/A		IBM Personal Computer	PC	Corridor CS	360 Kb 5.25"	360 Kb 5.25"					1
N/A		Everex 24E+ Modem	KOD	Corridor CS							Hayes Compatible
N/A		11 Parallel Long Link	OTH	Corridor							HP LaserJet II D

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TAG NUMBER	CABLE NUMBER	DESCRIPTION	CODE	LOCATION	DISKETTE DRIVE A	DISKETTE DRIVE B	HARD DRIVE	VIDEO ADAPTER	RAM	ARCNET CARD	OTHER
		Dot Matrix Printer									

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 * LEGEND:MC = COLOR MONITOR *
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 * 386 = 80386 MICROPROCESSOR *
 * MOD = MODEM *
 * OTH = OTHER HARDWARE *

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**APPENDIX D
FLOOR PLAN**

