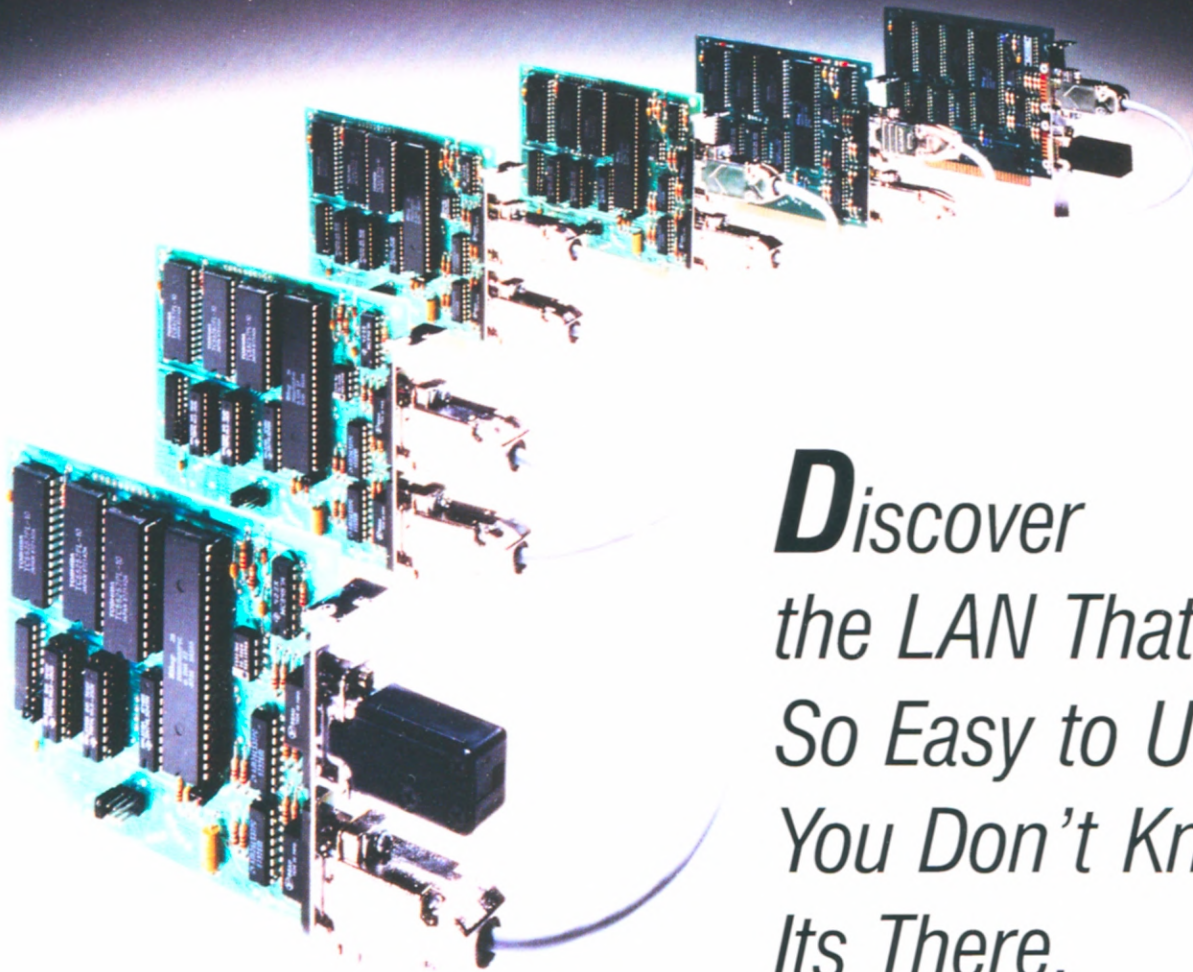# DNA

DNA NETWORKS, INC.

Discover
the LAN That's
So Easy to Use
You Don't Know
Its There.

Since 1978 (providing networking for proprietary Z80-based systems), DNA Networks has been a pioneer and an industry leader in developing local area network technology.

Today, DNA Networks offers incredible local area networking solutions for interconnecting IBM PCs, IBM PC-XTs, IBM-ATs, IBM PS/2s, any IBM compatible equipment and 386-based computers. The product line consists of Standard Product, Product II and the PS/2 Product . . . all of which include the network operating system software with the hardware AT NO ADDITIONAL COST!
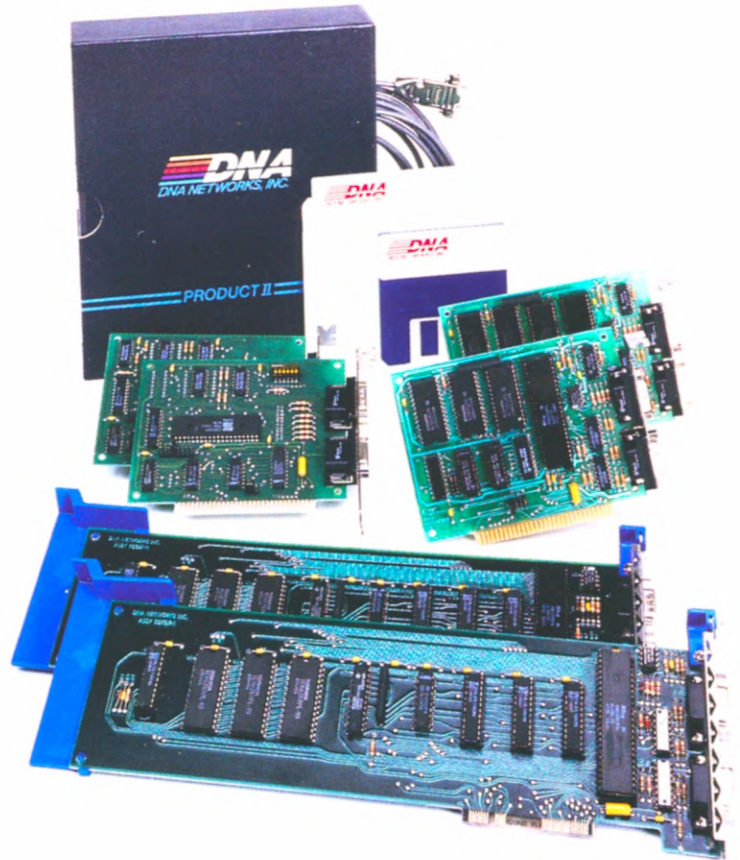
## So Easy To Use You Don't Know You're Using A Network

The DNA networks hallmark, as it has always been, is to provide easy-to-use networking to the end user. In fact, you'll find this full-featured network so easy you won't even realize you're using a network.

While other networks require users to learn new commands in order to work, DNA uses simple DOS commands to execute all functions. So DNA users don't have to be computer scientists or trained in new procedures. With DNA, users can immediately work, using the DOS functions they already know. The difference is that now they are using a DNA network that lets their computers "talk" to other computers, printers and devices.

Of course, DNA Networks also provides additional functions to make the solution "full-featured." Many of these additional functions are geared for the more sophisticated user. They are not necessary to use the network   but it's nice to know that they are there to grow into!

So Easy To Install It Takes Less Than 10 Minutes

When we say that a DNA network can be installed in less than 10 minutes, we don't mean either the hardware or the software. You can install *both* the hardware and the software on any server or station in less than 10 minutes! Even if you have to invoke the AUTOMATIC INSTALL ROUTINE!
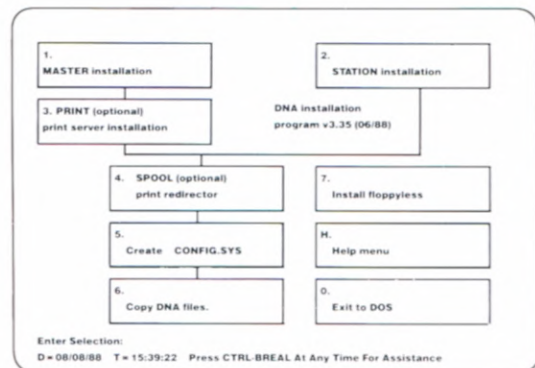
DNA Installation Menu

So Reliable, It's Known As The "Worry-Free" Lan

DNA's unique architecture, including a 20MHz Super Z8 processor and 64kb of RAM (96kb on the PS/2 product), improves throughput speed and enables the network software to reside on the board. That means:
1) You don't have to purchase additional & expensive RAM to run the network.
2) The software doesn't interfere with applications (you can even run memory-hungry CAD)
3) The network software is out of reach, so it's virtually incorruptible!

So Secure, It's Goof-Proof

The DNA security system provides two tiers of security: 1) Each user on the network is required to have a *Username* and a *Password* before accessing the network and 2) the username is then used as the key to file access rights through *Access Rights Control*. The Network Security Administrator can specify access rights (e.g. read, write, execute, create, rename, erase and/or exclude) for any username to any directory(s), subdirectory(s) or device(s).

```
DNA SECURITY SYSTEM/ VERSION 3.35 Rev A (3/88)

1.- Enter master password (required to access system).
2.- Change master password.
3.- Display/alter usernames and passwords.
4.- Display/alter specific user access rights.
5.- Copy access rights from established user to new user.


6.- Save changes.
7.- Display/alter options.
8.- Print usernames and access rights.
9.- Exit.


Press CTRL-BREAK at any time to get HELP menu.
```

```
DNA Security System. Screen #3000. Enter, change, delete usernames, passwords.

USERNAME/PASSWORD    USERNAME/PASSWORD    USERNAME/PASSWORD    USERNAME/PASSWORD
01  Lucy    K089      Pat   QQQ            Frank   ***
05
09
13
17
21
25
29
33
37
41
45
49
53
57
61
65
69
73
77

Use TAB and SHIFT-TAB to skip between fields. Use END key when finished.
D = 04/06/88 T = 09:45:22
```

```
DNA Security System. Screen #4000. Enter or change access rights.
        CURRENT USERNAME: LUCY          LOGON DIRECTORY C:
                                ACCESS                       ACCESS
      DIRECTORY NAME            RIGHTS   DIRECTORY NAME       RIGHTS
k1    C:  WS                    WRE      C:  123              R
03    C:  DFLEX                 R        C:  DOS              R
05    C:  WS  PAYROLL           X        C:  WS  PAYABLES     X
07
09
11
13
15
17
19
21
23
25
27
29

Access rights: R = read, W = write, E = erase/rename/create,
X = exclude from directory
D = 04/06/88, T = 09:45:22   Press END key to terminate.
```

What's more, the DNA security system provides a host of options, including . . .

- hide/disable print of passwords
- allow/disallow logon to more than one station
- restrict security system access including a master password
- allow/disallow alteration to own username
- allow/disallow alteration of own password
- log a user's activity between logon and logout for audit trail accounting and billing.

So Compatible, If It's DOS 4.X, 3.X Or Implements NETBIOS It Runs With DNA

It doesn't matter whether it's hardware (including all disk drives) or software. If it adheres to the DOS 4.x or 3.x standard (plus share) it will run correctly on a DNA network.

And to ensure that one user does not alter data being changed by another user, the DNA networks support three different locking mechanisms:
1) DOS 4.x, 3.x file and record locking (NETBIOS Compatible).
2) Emulation of Novell Netware locks.
3) DNA shared locks for read with denying write access.

So Fast, You'll Think You're Running Standalone

While other networks quote their line speed, DNA, with its unique architecture, including a 20 MHz Super Z8 processor for improved communications, provides a *throughput* speed of 2.5 megabits per second   and that's up to *twice* as fast as other networks.

And since the DNA Networks Super Z8 processor works in parallel with the host CPU, computing tasks and networking tasks occur simultaneously.

So Expandable And Affordable, You Can't Afford To Be Without DNA

DNA Networks' unique architecture enables most of its easy-to-use software to be installed directly on the network board. So, while other LANs require you to pay for the software and then for the hardware, DNA networks gives you both the hardware and the software together for the LOWEST COST PER NODE (and therefore the lowest total cost) of any full-featured LAN.

What's more, you don't need a dedicated file server. Since most of the network operating system resides on the hardware, the file server can be used as a workstation without the risk of corrupting data or degrading network performance.

And .   any DNA Network is infinitely expandable! Using a flexible topology (star, bus or combination), each DNA Network file server can support up to 64 nodes (PCs, XTs, ATs, 386-based, PS/2s and/or compatibles) *without degrading the network*! So you can expand the network to suit your needs   and you'll never be able to outgrow it.

Don't be fooled by other network solutions. Shop around, compare, then take a look at a DNA network. When it comes to a comprehensive, full-featured LAN, nothing compares with DNA's ease-of-use, expandability, security and low, low cost.

For more information about DNA Networks or to find the name of your nearest DNA network dealer:

DNA Networks Product Profile

Features:

- Exclusive Network Architecture
- Standard Product, Product II and PS/2 Product.
- Network software resides in 64kb on-board RAM (96kb in PS/2 Product).
- On-board Super Z8, 20MHz co-processor manages all network traffic.
- 64 nodes per server.
- Non-Dedicated server can be used as a workstation.
- Ease-of-use through simple DOS commands.
- 2.5 Megabits per second *throughput* speed (1.25 Mbps for Standard product).
- Runs all DOS compatible software.
- 2 Tiers of Security (supports NETBIOS).
- Easy-to-install . . . 10 minutes per node.
- Printer spooling and electronic mail fully supported.
- Lowest total cost for LAN (lowest cost per node).

Specifications:

Hardware:
Half-slot adapter for PC, XT, AT and 386-based IBM and compatibles.

Full-slot adapter for PS/2 and compatibles.
Approved for 24MHz 386, 16MHz 286 and 10MHz 8088 systems.

PC Requirements:
130kb on server, only 10kb on workstation.
Supports floppy-less computers.
No DMA channels are used.
No interrupts are required.

Data Transfer Rate:
2.5 Megabits per second.

Memory Requirements:
Uses under 130kb on a server and under 10kb on a workstation.

DOS:
Fully supports the DOS 4.x and 3.x standards including MS-DOS or PC-DOS 4.0, 3.3, 3.2 or 3.1.

Topology:
Star, bus and/or combination with no requirement for additional hardware.

Expandability:
64 nodes per server.
No repeater hubs necessary.

Network Length:
5000 feet with shielded twisted pair cable.

Printer Spooling:
Supports multiple printers per server.

Security:
Username and *Password* security, *Access Rights Control* security.

Audit Trails:
Username logon/logoff is time stamped and logged to the server.

Standards:
RS-485, RS-422 communications protocols.

DNA

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