

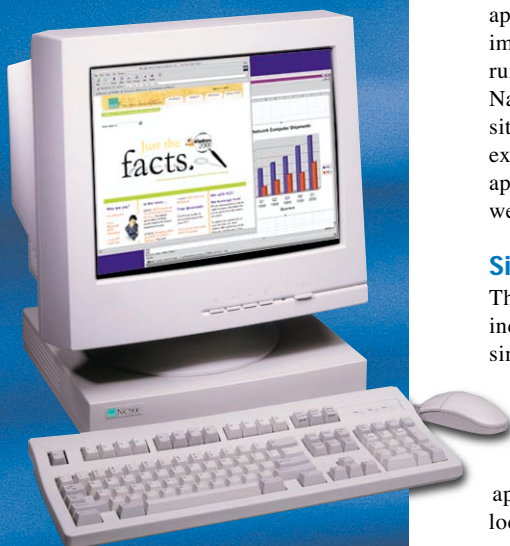
# NCD NC900 Series Business Network Computers

Industry leading network computing solutions

The NC900 Series offers the broadest support for today's web, UNIX, Windows and legacy application access requirements, with expandability to meet tomorrow's needs.

## Highlights

- Unparalleled support for distributed processing
- Local Netscape NC Navigator browser
- Simultiple™ Color
- Java™ 1.1 virtual machine
- Broad application support
- X11 and legacy system access
- Remote management
- Flexible boot technology



Monitor, keyboard and NCBridge Software sold separately.

## Proven Thin Client Technology for Today's Business

In the rapidly evolving world of information technology and business computing, one thing has not changed. The desktop client is still the single most critical interface between your business systems and your people. NCD continues to bring leadership and expertise to the market in support of this critical interface. The NC900 Series Business Network Computers are designed to meet the ever-increasing needs of business at the desktop, providing complete and low-cost access to your enterprise business systems.

As networked business systems evolve and grow, the desktop support of enabling technology becomes critical. The NC900 brings all the power of your business enterprise to every desktop through local web browsers, Java, ICA, and X11 technology.

## Unparalleled Support for Distributed Processing

The NC900 brings the power of a local processor to each desktop. Selected applications that provide access to network servers run locally on the NC900. This allows off-loading of server processes and the network, freeing them up for complex business-related applications rather than simple access processing. Because the NC900 has local processing capabilities, user and task specific processing can be distributed locally where it is more efficient.

## Local Netscape NC Navigator Browser

The NC900 supports a local Netscape NC Navigator browser for accessing web-based applications. Users will appreciate the overall improvement in response time made possible by running the browser locally. With Netscape NC Navigator, users may access informative web sites, check email, access Usenet news, or execute local Java applets. Custom business applications are accessed through the standard web protocols provided within the browser.

## Simultiple™ Color

The NC900 offers Simultiple Color—an industry-first capability<sup>1</sup>—which supports simultaneous multiple color depths. With Simultiple Color, the NC900 is the first thin client to display browser images with accurate 24-bit color fidelity without interfering with other 8-bit color applications. Simultiple Color allows either a local or host-based Netscape Navigator browser

to be displayed in 24-bit color while 8-bit color applications are simultaneously displayed on the same screen.

## Java 1.1 Virtual Machine

A Java 1.1 virtual machine is included in the local Netscape NC Navigator on the NC900. This enables business applications to make use of distributed processing by downloading Java applets to run locally on the NC900.

## Broad Application Support

The NC900 provides simultaneous windowed access to a local Netscape NC Navigator browser, X11 clients, PC applications, Java, and server-based applications running on most major systems. Business systems such as web servers, application servers, file servers, mail servers, or database servers can be accessed easily and simultaneously. The NC900 also comes standard with an ICA client for accessing your favorite PC applications on a network server.

## X11 and Legacy System Access

The NC900 supports access to X11 applications via an X11R6.1 Xserver. Additional legacy systems may be accessed simultaneously through a series of terminal emulation packages that execute locally. Users may access applications using local IBM 3270E and 5250, DEC VT220 and DEC VT340 emulators.

## Remote Management

The NC900 series can be easily configured and managed from a central remote configuration file. And, with a local HTTP server, a system administrator can easily interrogate, identify and resolve incorrect NC parameter settings from a remote location using any Internet browser. Support for SNMP MIBII is also available.

## Flexible Boot Technology

The NC900 series supports a variety of boot methods, including the ability to boot across the network or to boot from local flash memory. Also supported is the ability for one NC to boot from another NC's flash memory. This technique of "buddy booting" or "peer booting" provides a low-cost method of booting NCs at a remote location, where only one NC requires the additional flash memory.

## World-Class Technical Support

NCD and NCD Technology Certified Resellers have a decade of experience in thin client computing. Backed by formal service level agreements with Microsoft and Citrix, a range of support services are available.

<sup>1</sup> Contact NCD for required NCBridge 4.0 enhancement

# NC900 Series Business Network Computers

## Standard Features

|                                  | N916-WW | N948-WW | N980-WW |
|----------------------------------|---------|---------|---------|
| <b>System Memory Installed</b>   | 16MB    | 48MB    | 80MB    |
| <b>System Memory Slot Unused</b> | 1       | 0       | 0       |
| <b>Flash Memory Slot Unused</b>  | 1       | 1       | 1       |
| <b>10/100BaseT</b>               | YES     | YES     | YES     |
| <b>Serial Ports</b>              | 2       | 2       | 2       |

## Available Features

- All bases include auto-sensing 10/100BaseT Ethernet, audio input and output, 3-button mouse with PS2-style mini-DIN connector, two 9-pin RS-232 serial ports and a universal external power supply (110V or 220V)

### Warranty

- Three-year return-to-depot

### Processors

- QED RM5231 @ 165 MHz
- S3 Savage4 graphics controller

### Performance

- X11 Xmarks: 12.0
- Wintach: 140 (@1024x768x256 colors)

### Color Depth and Maximum Resolution

| Color Depth                                | Max Resolution |
|--|----------------|
| 8-bit only                                 | 1600x1200      |
| 16-bit only                                | 1600x1200      |
| 24-bit only <sup>1</sup>                   | 1280x1024      |
| 16-bit & 8-bit simultaneously <sup>1</sup> | 1280x1024      |
| 24-bit & 8-bit simultaneously <sup>1</sup> | 1024x768       |

### Maximum System Memory

- 256 MB

### LAN Ports

- Standard: auto-sensing 10/100BaseT Ethernet
- Field Upgrade: 10Base2 (Thinnet)

### Parallel Port

- Field Upgrade: One bi-directional 25-pin DSUB IBM-style port

### Audio Support

- Input: 16-bit, monaural or stereo
- Output: 20-bit, monaural or stereo
- Maximum sample rate: 48 kHz
- Input jack: 3.5 mm for microphone or line-in
- Output jack: 3.5 mm for headphone or line-out
- File formats: .au, .snd, .aiff, .wav, .voc
- Protocol: ICA Audio, NFS or TFTP

### Flash Memory Cards

- Field Upgrades: 8MB or 16MB

### Standards Compliance

- UL 1950\*, CAN/CSA C22.2 No. 950\*, IEC 950\*, FCC Class A, EN55022 (class A), EN55024, EN60950, C-Tick, VCCI, CE, Energy Star Compliant (\* certified by CSA)

### Cooling

- Convection (no fan required)

### Keyboards Supported

- Windows 95, IBM 3270, SUN type V

### Monitor Connector

- Mini D-sub 15-pin, VGA

### Server Software

- NC900 series requires NCD NCBridge 4.0

## NCD NCBridge Software Features

### Web Support

- Local Netscape NC Navigator Browser; Java Interpreter. Supports HTML, MIME, GIF, JPEG, SMTP, NNTP, FTP, POP3 and IMAP4 (minimum 48MB System Memory recommended)

### Boot Options

- Boot from host server
- Boot from local flash memory
- Boot from another NC's local flash memory ("buddy boot")

### Boot Protocols

- TFTP, NFS, DHCP, BOOTP, RARP, Field Upgrade: MOP/DAP

### Network Protocols

- Standard: TCP/IP, TFTP, NFS, BOOTP, RARP; DHCP, PPP. Field Upgrades: DECnet and LAT

### Protocol Support

- Supports ICA protocol

### Network Management

- Standard: Web-based management via local HTTP server, DNS, SNMP MIB II, PING, Boot Monitor; Field Upgrades: DECnet Mirror and DECnet Trigger

### Parameter Setup

- Setup menu system, central remote configuration file and web-based administrator

### Printer Support

- Network printer support, local print screen, local BSD print spooler

### X Server

- X Server based on X11 Release 6.1

### Server Extensions

- Shape, Input Extensions, Multi-Buffer, Font Caching, Xidle and Xtest RARP Extensions

### Local Clients

- Standard: TELNET, Console, Protocol Independent Chooser, Setup, Local Client Launcher, VT220 and VT340 Emulators, Local Xlock, Local Floppy Manager, Low Memory Indicator, XClock, Web-based Administrator includes Local HTTP Server, Audio Player, Audio Mixer, True OSF/Motif v1.1 and v2.0 Window Manager

- Field Upgrades: DECnet (Cterm, LAT), IBM 5250 and 3270E Emulators

### Multi-User PC Application Access

- ICA local client for accessing Microsoft Windows 2000 (or Windows NT Server 4.0 with Terminal Server Edition) and Citrix MetaFrame (or WinFrame) 1.6, 1.7 or 1.8

### Fonts

- 27 Resident, 700+ available on server tape/CD-ROM

### Font Service

- TFTP, NFS, Flash, DAP

### Supported Hosts

- SUN, HP, DEC (Ultrix, VMS, Alpha Open VMS), IBM RS/6000, SGI, Linux and other UNIX Platforms, Windows NT and Windows 2000

### Input Options Supported

- Touchscreen, lightpen

### Remote Access

- PPP

### NCBridge Media Formats

- CD-ROM for Unix and Windows NT environments
- 4MM DAT tape for VAX VMS environments

### NCD ThinPATH Plus Support

- Supports redirection of COM port data from Windows NT Terminal Server Edition applications to the NC Serial ports

## Technical Specifications for the Logic Base

### Dimensions

- Height: 2.5" (64mm)
- Width: 11.0" (279.4mm)
- Depth: 12.5" (317mm)

### Electrical

- Input current @ 110V is 0.75 Amps
- Input current @ 220V is 0.4 Amps
- Power Consumption is 26 Watts

### Heat

- Heat dissipation is 89 BTUs / hour

### Operating Temperature

- 10°C (50°F) to 40°C (104°F)

## Software Field Upgrades

### Single User License

- NCF3N** – DECnet and Local MWM 1.1
- NCF3R** – Local 3270E/5250 Terminal Emulator
- NCF4N** – DECnet & MWM 2.0

### 50-User License

- NCF3R-50** – Local 3270E/5250 Terminal Emulator

## Hardware Field Upgrades

- N9F32** – 32MB DIMM
- N9F64** – 64MB DIMM
- N9F128** – 128MB DIMM
- N9F8FM** – 8MB Flash Memory Card
- N9F16FM** – 16MB Flash Memory Card
- NCFDS** – Display Stand (required for 19", 20" or 21" monitors)
- NCFPL** – Parallel Port
- XPF001** – Floppy Disk (requires parallel port)

## Available Monitors

- STD15** – 15", 1024x768 color
- STD17** – 17", 1024x768 color
- STD19** – 19", 1600x1200 color\*
- STD21** – 21", 1600x1200 color \*

\* requires Hardware Field Upgrade NCFDS

## Available Keyboards

- KB-US** – Windows 95, North American
- KB-UK** – Windows 95, UK
- KB-FR** – Windows 95, French
- KB-SF** – Windows 95, Swedish/Finnish
- KB-GR** – Windows 95, German
- KB-IT** – Windows 95, Italian
- KB-FC** – Windows 95, French Canadian
- KS1** – Sun V, North American
- XPFYN** – 3270, North American

### Corporate Headquarters

Network Computing Devices, Inc.  
10795 SW Cascade  
Portland, Oregon 97223  
Tel: 503-431-8600  
Fax: 503-639-2003  
Web: www.ncd.com

### Network Computing Devices (Benelux) B.V.

Marktplein 222  
2132 CW - Hoofddorp  
Netherlands  
+31 (0) 235541070

<sup>1</sup> Contact NCD for required NCBridge 4.0 enhancement