

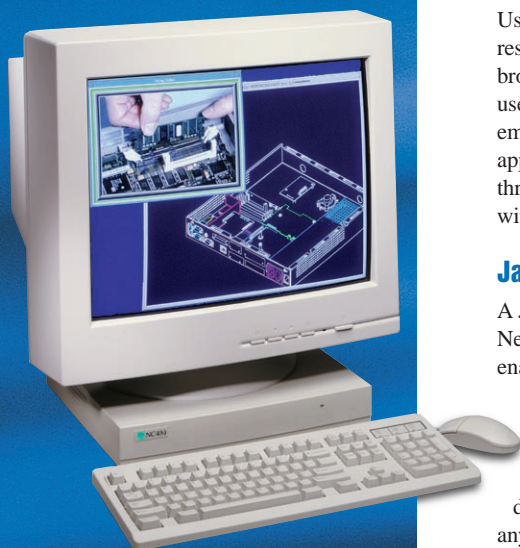
NCD NC400 Series Business Network Computers

Industry leading network computing solutions

The NC400 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
- Industry standard Netscape NC Navigator browser
- Java™ 1.1 virtual machine
- Business application and legacy support
- Dual-monitor support
- Best in class multimedia support



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 their leadership and expertise to the market in support of this critical interface. The NC400 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 NC400 brings all the power of your business enterprise to every desktop through web browsers and Java technology, distributed processing support, broad application and legacy access, and best in class multimedia support.

Unparalleled Support for Distributed Processing

The NC400 brings the power of a local processor to each desktop. Selected applications that provide access to network servers run locally on the NC400. 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 NC400 has local processing capabilities, user and task specific processing can be distributed locally where it is more efficient.

Industry Standard Netscape NC Navigator

The NC400 includes the industry leading Netscape NC Navigator browser as a standard component. Users will appreciate the overall improvement in response time made possible by running the browser locally. With the 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.

Java 1.1 Virtual Machine

A Java 1.1 virtual machine is included in the local Netscape NC Navigator on the NC400. This enables business applications to make use of distributed processing by downloading Java applets to run locally on the NC400. The inclusion of a Java virtual machine on the client gives each desktop the power to download Java applets for local processing from anywhere on the network, regardless of originating platform or location.

Business Application and Legacy Support

The NC400 provides simultaneous windowed access to server-based business applications and legacy applications running on most major systems. The local Netscape NC Navigator provides access to web, application, database and other servers. In addition, users may access legacy applications using IBM 3270E and 5250 emulators, DEC VT220, and DEC VT340 emulators and X Window System clients. The NC400 also comes standard with an ICA client for accessing PC applications running on a multi-user Windows NT server.

Dual-Monitor Support

For those applications where extended screen real estate is critical, the NC400 offers a dual-monitor option. Users can view and interact with data and graphics across two monitors using a single keyboard and mouse. The cursor moves seamlessly across both screens, allowing users to track information in multiple windows without the delays associated with overlapping windows or restricted viewing areas.

Best in Class Multimedia Support

The NC series are the only network computers that can display true 30 frames per second network digital video to a window along side other application windows for a combined presentation. The hardware assisted digital video will not degrade when using other local clients and brings increased user productivity to every desktop. This functionality makes it possible for users to be trained or updated via networked digital video at their desktops without interrupting other tasks.

World-class Technical Support

NCD and NCD Technology Certified Resellers provide a decade of experience in thin client computing. Backed by formal service level agreements with Microsoft and Citrix, you can choose from a wide range of services that cover the entire thin client environment.

NCD — The Thin Client Experts

The NC400 Series is predicated on NCD's decade of experience in meeting customer needs with industry-leading hardware and software technology. A good deal of our success is the result of close working relationships with companies like Citrix®, Liberate Technology® and Pericom®.

NC400 Series Business Network Computers

Standard Features

| | N400X2 | N400XPC | N400WEB | N400DM |
|-----------------------------------|-------------------|-----------|--------------|--------------|
| System Memory Installed | 16MB | 24MB | 72MB | 40MB |
| System Memory Slots | 4 | 4 | 4 | 4 |
| System Memory Slots Unused | 2 | 2 | 0 | 2 |
| Network Interface | 10Base-T, 10Base2 | 10Base-T | 10/100Base-T | 10/100Base-T |
| Maximum Resolution | 1280x1024 | 1600x1200 | 1600x1200 | 1600x1200 |
| 8-bit Pseudo Color | YES | YES | YES | YES |
| 16-bit True Color Support | | YES | YES | YES |
| Video Memory Installed | 2MB | 4MB | 4MB | 8MB |
| Local Motif 2.0 WM | | YES | YES | YES |
| Dual Monitor Card | | | | YES |

Other Features

- Logic Unit includes 3 button mouse, two 9-pin RS-232 serial ports and power module

Warranty

- Three year return-to-depot

Main Processor

- NEC R4310 @ 165 MHz
- Field Upgrade: Digital video processor: C-Cube CL-480 (NCFDV4)

Performance

- X11: 6.4 Xmarks; MPEG digital video: 30 fps at full screen

Maximum Resolution

- 1600 x 1200

Maximum System Memory

- 128MB

LAN Ports

- Field Upgrades: 10Base2 (ThinNet), 10Base5 (ThickNet), auto-sensing 10/100Base-TX

Parallel Port

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

Digital Video Card

- Field Upgrade: Delivers true 30 frames per second MPEG-1 streaming digital video

Audio Card

- Field Upgrade: 8/16-bit, monaural or stereo input and output, 48 kHz sampling rate (mono or stereo), 64X oversampling, 3.5 mm stereo line in and out, 3.5 mm microphone in, 3.5 mm stereo speaker/headset support, ICA audio

Flash Memory

- Field Upgrades: 8MB or 16MB

Standards Compliance

- UL 1950*, CAN/CSA C22.2 No. 950*, IEC 950*, FCC Class A, EN55022 (class A), EN50082-1, EN60950, C-Tick, VCCI, CE, Energy Star Compliant
* certified by CSA

Cooling

- Thermostatic cooling

Keyboards Supported

- Windows 95, IBM 3270, SUN type V

Monitor Connector

- Mini D-sub 15-pin, VGA

Dual-Monitor

- Model N400DM or Field Upgrade NCFDM4 supports two monitors with different applications displayed on each monitor using a single keyboard and mouse

Server Software

- Requires NCD NCBridge 3.2 or later

NCD NCBridge Software Features

Web Support

- Local Netscape NC Navigator Browser; Java Interpreter; HTML, HTTP, MIME, GIF, JPEG, SMTP, NNTP, FTP, POP3 and IMAP4 (56MB System Memory recommended)

Boot Options

- X Server Code downloads from host or optionally from flash memory

Boot Protocols

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

Network Protocols

- TCP/IP, TFTP, NFS, BOOTP, RARP; PPP: Field Upgrades: Serial Xpress, DECnet, LAT

Network Management

- 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 and remote configuration files

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, XIE 5 V5.0 with DIS Imaging Extension, Font Caching, Xidle and Xtest Extensions, XBlink

Local Clients

- TELNET, Console, Protocol Independent Chooser, Setup, Local Client Launcher, VT220 Emulator, Local Xlock, Low Memory Indicator, Flash Console Client, Local Floppy Manager
- Field Upgrades: DECnet (Term, LAT), Serial

Xpress, True OPENLOOK Window Manager, Tek340 Emulator, IBM 5250 Emulator, 3270E Emulator (Models 2, 3, 4, 5), 3287 Emulator, IBM Graphics 3179G Emulator (Models 2, 3, 4, 5), XIE

Multimedia Local Clients

- Field Upgrades: Local Audio Player, Local Audio Mixer, Local XIE Viewer, Local Video Player

Multi-User PC Application Access

- ICA local client for accessing Microsoft Windows NT, Server 4.0 Terminal Server Edition, Citrix WinFrame 1.6, 1.7 or 1.8

Host-Based Clients

- Sun Audio Redirect Driver

Fonts

- 27 Resident, 700+ available on server tape

Font Service

- TFTP, NFS, Flash, Serial Xpress, DAP

Supported Hosts

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

Input Options Supported

- Touchscreen

Remote Access

- PPP; Field Upgrade: Serial Xpress

NCBridge Media Formats

- CD-ROM, TK-50

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: 14.3" (363mm)
- Depth: 13.5" (343mm)

Electrical

- Input current @ 110V is 1.3 Amps
- Input current @ 220V is 0.7 Amps
- Power Consumption is 55 Watts

Heat

- Heat dissipation is 187 BTUs / hour

Software Field Upgrades

NCFBL – Local Blink Client

NCFEX – Local XIE

NCFN4 – Local Netscape NC Navigator 4.0

NCFNN – Local Navio NC Navigator 3.0

NCFRS – Serial Xpress

NCFSN – Local OpenLOOK Window Manager

NCF3L – Local Motif 1.1 Window Manager

NCF3N – DECnet and Local MWM 1.1

NCF3P – Local 3270 Terminal Emulator

NCF3Q – Local 3179G Terminal Emulator

NCF3R – Local 3270E/5250 Terminal Emulator

NCF3V – Local VT340 Terminal Emulator

NCF4L – Local Motif 2.0 Window Manager

NCF4N – DECnet & MWM 2.0

Hardware Field Upgrades

NCF04 – 4MB DIMM*

NCF08 – 8MB DIMM*

NCF16 – 16MB DIMM*

NCF32 – 32MB DIMM*

NCF1D – 8MB Flash Memory Card

NCF1E – 16MB Flash Memory Card

NCF3A2 – Thicknet Ethernet Interface (10Base5)

NCF3B2 – Thicknet Ethernet Interface (10Base2)

NCF3C2 – 10/100Base-T Ethernet Interface

NCF4U4 – Audio Card

NCFDV4 – Digital Video Card

NCFDM4 – Dual Monitor Card

NCFPL – Parallel Card

XPF001 – Floppy Disk (requires parallel card)

* Memory DIMMs must be installed in equal size pairs

Available Monitors

NCF15M – Panasonic 15", 1024x768 color

NCF17M – Panasonic 17", 1152x900 color

NCF17MH – Panasonic 17", 1600x1200 color

NCF21M – Panasonic 21", 1600x1200 color

STD15 – 15", 1024x768 color

STD17 – 17", 1024x768 color

STD19 – 19", 1600x1200 color

STD21 – 21", 1600x1200 color

Corporate Headquarters

Network Computing Devices, Inc.
350 North Bernardo Avenue
Mountain View, California 94043
Tel: 650-694-0650
Fax: 650-961-7711
Web: www.ncd.com

For More Information

| | |
|--------------------------------------|---|
| North America 800-800-9599 | Germany 49-89-4587-2820 |
| Australia 61-29-808-5455 | Japan 81-3-3449-8151 |
| Canada 905-501-1800 | Sweden 46-18-601080 |
| France 33-1-34-58-21-21 | United Kingdom 44-1491-848313 |