



Overview

Information—the right information in the hands of the right people at the right time—is crucial to a company's success. The introduction of the Apple® Macintosh® personal computer brought new power and ease of use to the task of personal information management. The original AppleTalk® Personal Network extended these same benefits to information sharing among small workgroups. Now, the LANSTAR AppleTalk Network multiplies the speed and range of AppleTalk to increase productivity within large workgroups and even entire companies.

LANSTAR AppleTalk can provide file sharing, print spooling, electronic mail, and other services to more than 1,300 users—at speeds so fast, the difference between local and remote access may be virtually transparent. Yet it costs less than comparable networks, because installation is done using standard telephone wiring; in most cases, no additional wiring will be required. Setup and reconfiguration are as easy as adding users to your telephone system. LANSTAR AppleTalk offers high-performance networking at an affordable cost.

All your normal Macintosh II AppleTalk applications will run on LANSTAR AppleTalk—only faster. Your current AppleTalk users won't even have to learn to use a new network—just hook up the system, and they're ready to increase their productivity.

LANSTAR AppleTalk combines the power of Apple personal computers and Northern Telecom telecommunications products to bring fast, cost-effective information sharing and communications to your company.

Features

Benefits

· Capacity of up to 1,344 users, as far as three-quarters of a mile apart

· Provides a one-network solution for more effective communications.
· Simplifies sharing of information among multiple workgroups—or even your entire company.

· Standard telephone (unshielded twisted-pair) wiring

· Saves on installation and modification costs—just plug a Macintosh II into the phone jack, and it's ready to use.
· Uses familiar, readily available technology.

· 40Mbps (megabits per second) bus; 2.56Mbps to each desktop

· Offers fast access to all files and services on the network.
· Dedicates a large-bandwidth channel to each user, so individual response time is minimally affected under heavy usage.
· Handles heavy loads with minimal degradation in service.

· Star configuration

· Provides high reliability, because problems at one node don't affect other users.

· Full AppleTalk compatibility

· Offers higher performance than standard AppleTalk, without additional learning time.

· Standard Macintosh II NuBus interface card

· Links Macintosh II systems to the network quickly and easily.
· Requires no user configuration; no DIP switches or interrupts to set, even if your system has multiple cards.

· Apple LaserWriter® printers support

· Allows shared access to a LaserWriter printer connected to a Macintosh II.

· Optional LANSTAR AppleTalk Bridge software*

· Links AppleTalk Personal Networks to LANSTAR AppleTalk.
· Allows you to bring other Macintosh systems and MS-DOS computers onto the network.**

· Fast document spooling.

· Frees your computer for other work while your files print.**

· LANSTAR PC compatibility.

· Allows you to run LANSTAR PC simultaneously off the same Meridian LANSTAR system.

· Northern Telecom design

· Incorporates time-tested features for ease of administration, system reliability, and security.

· Diagnostic software included

· Simplifies troubleshooting.
· Includes both user- and administrator-level diagnostics.

*See LANSTAR AppleTalk Bridge datasheet (Apple product number M2277) for further details.

**Requires additional software and/or hardware.

Product Details

System Configuration

The intelligence of the LANSTAR AppleTalk Network is driven from one central controller: the Northern Telecom Meridian LANSTAR system. Meridian LANSTAR systems are available in configurations that support as many as 1,344 users.

Standard node configuration includes a Macintosh II workstation with a LANSTAR Interface Card for the Macintosh II, an available port on the LANSTAR system, and two twisted-pair telephone lines to connect the computer to the system. The LANSTAR Interface Card provides a dedicated 2.56Mbps connection.

Other Macintosh systems, including the Macintosh Plus and Macintosh SE, can be used by connecting them to an Apple-Talk Personal Network that's bridged to a LANSTAR AppleTalk Network. The bridge is provided by LANSTAR AppleTalk Bridge software running in the background on a Macintosh II. MS-DOS systems can be linked to LANSTAR AppleTalk in the same manner.

The LANSTAR AppleTalk Bridge also offers all network users access to non-NuBus peripherals (such as dedicated file servers). (NuBus peripherals have direct access to LANSTAR AppleTalk through a Macintosh II.) See the LANSTAR AppleTalk Bridge data sheet for further details.

No bridge is necessary to use an Apple LaserWriter printer on LANSTAR AppleTalk. An ordinary AppleTalk cable can connect the LaserWriter to a Macintosh II for access by all network users.

LANSTAR AppleTalk is designed for use with ordinary unshielded twisted-pair telephone wiring. Since most modern commercial buildings already have extra phone lines at each desk, LANSTAR AppleTalk usually requires no wiring installation.

LANSTAR Interface Card for the Macintosh II
The LANSTAR Interface Card for the Macintosh II is a NuBus card that connects your Macintosh II to a LANSTAR AppleTalk Network. The computer can then be used just as it would with an AppleTalk Personal Network, except that access speed for remote files and services will be faster.

Since NuBus interface cards automatically identify themselves to the system, users don't have to worry about putting a card in a particular slot, or setting DIP switches or priorities. This allows easy setup and configuration and reduces network support needed by users.

LANSTAR AppleTalk Diagnostic Tool

The LANSTAR AppleTalk Diagnostic Tool is a software application that aids in faster and easier network installation, as well as easier troubleshooting of the LANSTAR AppleTalk Network.

This product is an excellent process, because it gives the administrator a way to verify proper installation. It will also facilitate locating any problems that might occur.

The Diagnostic Tool includes a workstation self-test mode that can be used by individual users. Its administrator-level tests include the ability to test any designated nodes, track network status and usage, and locate and identify faults. It even suggests possible solutions to any problems it finds.

System Requirements

To use the LANSTAR AppleTalk Network, you will need the following:

- A Northern Telecom Meridian LANSTAR system configured for the necessary number of users (one available LANLINK port per user)
- User workstations, consisting of
 - A Macintosh II personal computer

- LANSTAR Interface Card for the Macintosh II
- LANLINK Interface Cable (RJ11 to RJ11)
- A standard twisted-pair wiring connection to the LANSTAR system
- LANSTAR AppleTalk Network software

To link a LANSTAR Apple-Talk Network with an AppleTalk Personal Network, you will also need:

- A Macintosh II personal computer with the specified workstation configuration
- LANSTAR AppleTalk Bridge software (Since the bridge software runs in the background, this system can also be used as an individual workstation.)



LANSTAR AppleTalk Network

System Requirements

LANSTAR AppleTalk Network

- Topology: Star
- Wiring: Unshielded twisted-pair (22- to 26-gauge wire)
- Signaling speed: 2.56 Mbps to a 40 Mbps backbone
- Maximum length: 2,000 feet to each point of the star (workstations can be up to 4,000 feet apart)
- Node identification: Self-configuring (except for the LANSTAR AppleTalk Bridge)
- Applications supported: All Macintosh II AppleTalk applications
- Polling mechanism: High-speed, perfect scheduling
- Backbone: Shared 40 Mbps; optional redundant backbone

LANSTAR Interface Card for the Macintosh II

- LANSTAR protocols support
- The full AppleTalk protocol stack, including ATP, NBP, ZIP, EP, PAP, and RTM

- - ALAP, modified to support twisted-pair media
- - DDP, extended to support the LANSTAR AppleTalk Bridge
- Memory: 2 kilobytes of RAM
- Interfaces: Two RJ11 jacks (one is to “pass through” the telephone)
- Configuration: NuBus

Maximum power consumption: 4.8 watts

- Size: 4 in. (10.2 cm) high by 11.75 in. (29.9 cm) long
- Operating temperature: 50° to 95° F (10° to 35° C)
- Meridian LANSTAR System (Model PTE-S)

Electrical requirements

- - Line voltage: 92 to 130 volts AC (184 to 260 volts AC optional)
- - Frequency: 47 to 440 hertz
- - Power consumption: 300 watts maximum each power supply; 410 watts maximum fully loaded system

Environmental requirements

- - Operating temperature: 50° to 99° F (10° to 37° C)
- - Relative humidity: 5% to 95% noncondensing
- Regulatory approvals: UL; FCC Part 15, Class B

Size and weight

- - Height: 29.5 in. (74.9 cm)
- - Width: 23.3 in. (59.2 cm)
- - Depth: 25.5 in. (64.8 cm)
- - Weight: 215 lb. (97.5 kg) with one power supply; 242 lb. (109.8 kg) with two

LANSTAR AppleTalk Diagnostic Tool

- Driver interface: NuBus
- Protocol interface: DDP
- Stand-alone application; standard Macintosh user interface
- Loop back, echo, local-node test, remote-node test

LANSTAR AppleTalk Network Ordering Information

To order the LANSTAR AppleTalk Network, please call toll-free, 800-328-8800 (in the United States) or 800-361-7950 (in Canada).

Macintosh II LANSTAR Workstation Hardware
Northern Telecom Order No. NITZR47AA

With your order, you'll receive:

- LANSTAR Interface Card for the Macintosh II
- Twisted-pair modular line cord (with RJ11 plugs)

Software
Northern Telecom Order No. NITZR48AA

With your order, you'll receive:

- 3.5-inch disk including:
 - - LANSTAR AppleTalk Workstation software
 - - LANSTAR AppleTalk File/Print-Server Driver
 - - LANSTAR AppleTalk Diagnostic Tool
 - - Installer and Installer Scripts
 - - System software
- Use and installation guide