LocalNet 50/100™

Network Control Center

Overview

The LocalNet 50/100™ Network Control Center (NCC) automates network administration, access control, network performance monitoring, secure communications, and other network management services. The 50/100 NCC is an easy to use, modular approach to network management that is based on an advanced 16-bit microprocessor system with integral disk and tape storage in a desk-top or rack-mountable unit.

Features

- The Network Resource Manager (NRM) Basic Package provides a configuration tool, a data base creation tool, and a name server access controller.
- The Digital Monitor (DM) option provides centralized collection and display of network performance information and alarms for up to five LocalNet™ channels.
- The Key Distribution Center (KDC) option interacts with secure PCUs to provide secure communications through encryption.
- The NCC is remotely accessible, permitting the network manager to control network operations from any terminal within the network.

Description

The 50/100 NCC is a flexible tool providing services to both the network manager and general LocalNet users. The (NRM) network manager services offer a wide array of options for controlling and optimizing network performance. The user services include name serving and automatic session creation, help, and access control.

- A data dictionary driven NCC database records both administrative and operational data for each component of the LocalNet.

- A screen-oriented NCC Database Interface enables a Network Manager to enter and validate LocalNet component information. With the Database Interface, the network manager can define LocalNet component configurations, symbolic destinations names, user ids and passwords, and user, destination, and LocalNet component access rights.
- LocalNet component configurations can be initialized, monitored, and enforced using the Configuration tool in the Resource Manager Basic Package.
- Users' PCUs can be configured to automatically call the Name Server/Access Controller ports of the NCC. The Name Server/Access Controller translates a destination name acquired from a user into a LocalNet address, validates the access rights of the user's PCU, and then creates a session between the user and the destination. If the user's PCU access rights are not sufficient, the user may login and supply his own access rights (login + password) for the session.
- Status information showing channel throughput, error rates, and alarms is presented on a continuous display using the Digital Monitor Option in conjunction with the 50/120™ Statistical Monitor(s). Traffic alarm indicators are displayed when channels are congested or significant levels of channel errors occur. User service and configuration control alarms are also displayed.
- The network manager can define secure PCU configurations into the KDC Database as part of the Key Distribution Center Option. Also, users with a secure PCU can establish secure sessions to other secure PCUs with the transparent intervention of the Key Distribution ports on the NCC.

Capacity Specifications

For the single 10 MByte Winchester Disk NCC:

- NCC Database Capacity - accommodates up to 3000 users, 1200 LocalNet PCUs, and 300 symbolic destinations.
- NCC Report File Capacity - accommodates approximately 5000 Name Server and Configuration Control interaction reports.

For the dual 10 MByte Winchester Disk NCC:

- NCC Database Capacity - accommodates up to 6000 users, 2400 LocalNet PCUs, and 600 symbolic destinations.
- NCC Report File Capacity - accommodates approximately 10,000 Name Server and Configuration Control interaction reports.

Performance Characteristics

For an 8 port NRM:

- NCC Name Serving/Access Control Performance - up to 250 new call creations per hour.*
- NCC Configurer Performance - up to 120 PCU ports per hour.
- NCC Digital Monitor Performance - up to 30 collection reports per hour.

For a 16 serial I/O port NCC:

- NCC Name Serving/Access Control Performance - up to 500 new call creations per hour.*
- NCC Configurer Performance - up to 120 PCU ports per hour.
- NCC Digital Monitor Performance - up to 30 collections and reports per hour.

*Name Server performance values given above are based upon a Poisson Distribution of requests for 99.9% availability with a thirty second hold time.

Product Specifications

- MC68000 8 MHz
- Memory Management
- Direct Memory Access (DMA)
- 512 KBytes of Dynamic Parity RAM
- one or two (optional) 10 MByte 5¼" Winchester Disk
- eight or sixteen (optional) RS-232C serial I/O ports
- 20 MByte Streaming Tape Drive
- subset of UNIX™/V7 operating system

Environmental and Safety

Temperature	32 to 130° F, operating 40 to 165° F, storage or shipping
Temperature Rise	The measured temperature rise throughout the equipment shall not exceed 20° F above ambient.
Relative Humidity	20 to 95% at maximum wet bulb of 78° F, operating (non-condensing) 0 to 95% (non-condensing)
Altitude	-200 to 15,000 feet, operating -200 to 50,000 feet, storage

Electrical

Primary Power Input	115V ± 10%, VAC, single phase 60 Hz ± 2% 230 VAC +10%, -15%, 50 Hz ± 2% available by strapping the power supply
Heat Output	1200 BTU/hour, nominal
Power	350 watts, maximum
Internal D.C. Power	+5V at 20 amps +12V at 4 amps (8 amps surge) +12V at 1.5 amps -12V at 1 amp +24V at 1.5 amps

Physical

LocalNet 50/100 Includes:

Basic Hardware	One 10 MByte 5¼" Winchester disk One 20 MByte Streaming Cartridge Tape Drive Eight serial RS-232C ports
Hardware Options	Additional eight serial RS-232C ports Additional 10 MByte 5¼" Winchester disk

Height	10.5"
Width	17" with optional 19" rack mount kit
Depth	19"
Weight	55 pounds with all possible options

Ordering Information

Model	Option	Description
LocalNet 50/100		Network Control Center
	V01	Network Resource Manager (required)
	V02	Digital Monitor (requires one or more optional LocalNet 50/120 Statistical Monitor(s))
	V03	Key Distribution Center (requires LocalNet 20/100™ option Z01)
	V11	Add one 10MByte Mini-Winchester Disk
	V12	Add eight serial I/O ports
	W00	115 VAC, 60 Hz AC power
	W01	220 VAC, 50 Hz AC power

UNIX™ is a trademark of Bell Laboratories.

SYTEK DISTRICT SALES OFFICES

NORTHWESTERN DISTRICT
1225 Charleston Rd.
Mountain View, CA 94043
(415) 966-7330

NORTHEASTERN DISTRICT
990 Washington St./Suite 112
Dedham, MA 02026
(617) 329-7881

New York Branch
760 Hwy 18, Bldg 7/Suite 117
E. Brunswick, NJ 08816
(201) 238-8555

SOUTHWESTERN DISTRICT
2160 Fletcher Parkway
El Cajon, CA 92020
(714) 448-0664

SOUTHEASTERN DISTRICT
6000 Executive Blvd/Suite 205A
Rockville, MD 20852
(301) 984-3000

CENTRAL DISTRICT

Dallas Branch
433 E. Las Colinas Blvd/Suite 970
Irving, TX 75039
(214) 556-1557

Chicago Branch
4450 S. Clausen Ave.
Western Springs, IL 60558
(312) 246-3943

sytek

Sytek, Inc.
an affiliate of General Instrument

1225 Charleston Road
Mountain View, CA 94043
Telephone (415) 966-7330