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Data Networking Products **Publications**

255-100-235

Issue 3

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The Lucent Technologies BNS-2000 Broadband Switch is a full-service data networking platform that supports asynchronous, synchronous, X.25/X.75, and Frame Relay services, including channelized T1/E1, in local area networks (LANs) and geographically dispersed sites in wide area networks (WANs). BNS-2000 also supports the latest transmission methods for broadband data services: Asynchronous Transfer Mode (ATM) and Switched Multimegabit Data Service (SMDS), and trunk connections to such ATM switches as GlobeView®-2000 Broadband System. BNS-2000 Release 5.0 supports the extended switch complex which includes industry compliant STR4 Stratum 4 clocking with replaceable reference input boards (RIBs).

StarKeeper® II NMS, the network management system for BNS-2000, enables both distributed and centralized administration and monitoring of networks. Release 9.0 of *StarKeeper* II NMS supports BNS-2000 Release 5.0; BNS-2000 VCS/*Datakit* II VCS Release 6.0; and many previous product releases.

Documentation covering all aspects of BNS-2000, *StarKeeper* II NMS, and related products is available for these audiences: network service providers and data communications managers; site, network, and database planners and designers; installers; administrators; operators; maintenance technicians; and end users. *Datakit* II VCS customers ordering new central hardware after January 1997 will receive the BNS-2000 VCS hardware option, BNS-2000 VCS/*Datakit* II VCS Release 6.0 software, and a complete set of BNS-2000 documentation.

BNS-2000 Publications

The BNS-2000 Release 5.0 library, which includes BNS-2000 and Data Networking Products paper documents and a CD-ROM of the entire library, is shipped with the product. These documents and the CD-ROM may also be ordered separately.

The following table lists the documents that support BNS-2000 Release 5.0. The table is followed by detailed descriptions.

BNS-2000 Release 5.0 Documentation	
Order Code	Documentation
BNS-2000 Release 5.0 Library	
255-184-150	BNS-2000 Customer Documentation Library, Release 5.0, on paper and CD-ROM. Includes BNS-2000 and Data Networking Products titles below.
255-184-151	BNS-2000 Library, Release 5.0, on CD-ROM only
BNS-2000 Documents	
255-184-107	Access Interface Module Reference, Issue 3
255-184-153	Node Reference, Issue 1
255-184-104	SMDS Guide, Issue 3
255-184-152	System Description, Issue 1
Data Networking Products Documents	
255-100-233	Administration Quick Reference, Issue 3
255-100-234	Commands Reference, Issue 3
255-100-204	Computer Port Module Reference, Issue 2
255-100-205 ISS 4	Frame Relay Module Reference, Issue 4
255-100-206	LAN Protocol Module Reference, Issue 3
255-100-237	M2 Frame Relay Module Reference, Issue 3
255-100-231	M2 Trunk Module Reference, Issue 3
255-100-210	Messages Reference, Issue 7
255-100-228	Multipurpose Concentrator Reference, Issue 2
255-100-207	Multispeed Module Reference, Issue 2
255-100-230 ISS 4	Planning Guide, Issue 4
255-100-235	Publications, Issue 3
255-100-209	Session Maintenance Guide, Issue 2
255-100-211	Special Module Reference, Issue 2

BNS-2000 Release 5.0 Documentation (continued)	
Order Code	Documentation
Data Networking Products Documents (continued)	
255-100-212	SYNC8 Module Reference, Issue 2
255-100-203	Synchronous/Asynchronous Multiplexer Reference, Issue 4
255-100-236	Terminal User Guide, Issue 2
255-100-201	Terminology, Issue 6
255-100-214	Transparent Synchronous Module Reference, Issue 2
255-100-213	Trunk Module Reference, Issue 2
255-100-215	TY Module Reference, Issue 2
255-100-216 ISS 3	X.25 and X.25P Module Reference, Issue 3
255-100-217	X.75 Module Reference, Issue 2

BNS-2000 Access Interface Module Reference

300pp.

Issue 3

255-184-107

This document is a reference for the Access Interface Modules (AI-E1, AI-T1, AI-E3, and AI-T3) that support SMDS service. The guide covers installation, cabling, administration, and troubleshooting, and provides detailed descriptions of the commands associated with the modules.

BNS-2000 Node Reference

400pp.

Issue 1

255-184-153

The *Node Reference* is a compilation of information on the BNS-2000 switch and the BNS-2000 VCS/*Datakit* II VCS option. It describes hardware and software in the following sections: *Overview*, *Installation*, *Operations*, *Administration*, *Maintenance*, *Troubleshooting*, *Upgrades*. The document gives complete procedures for assembling the node shelves, installing and cabling Switch and Control Shelf modules and input/output distribution boards, and cabling administrative interfaces. Node start-up and routine operating procedures, including those for upgrading software and switching to backup components, are given. Database entry, routine administration, monitoring, report gathering, and maintenance are covered. An overall approach to troubleshooting a network is given, with a focus on the resolution of problems associated with the central data switch and Control Computer components. Appendixes include database entry forms that can be photocopied and used for administration records.

This document is an essential reference for anyone needing detailed information on the data switch: installers, operators, administrators, and maintenance and service personnel.

BNS-2000 SMDS Guide

300pp.

Issue 3

255-184-104

This document is a detailed description of SMDS, a high-speed, connectionless, public packet-switched service. The guide covers implementation concepts, administration, operations, and troubleshooting for the service. The guide is designed to be used with the following documents: *BNS-2000 Node Reference*, *BNS-2000 Access Interface Module Reference*, *Data Networking Products M2 Trunk Module Reference*, and *StarKeeper II NMS* documents.

BNS-2000 System Description

320pp.

Issue 1

255-184-152

The *System Description* describes the capabilities, features, and operating characteristics of the complete BNS-2000 offering, including the BNS-2000 VCS/*Datakit II* VCS and BNS-2000 MPC options. The switch (node), concentrators, interface modules, and *StarKeeper II NMS* and other administrative interfaces are described. Topics covered include service offerings, typical user applications, training, customer assistance, documentation, and maintenance and support services. Related products are also described. The document is intended for data communications managers, network planners and designers, and technical support staff.

Data Networking Products Administration Quick Reference

20pp.

Issue 3

255-100-233

A job aid for administrators and maintenance personnel, this pamphlet contains a complete list of commands that can be entered at the node console. The list includes commands described more fully throughout the node, concentrator, and module references. Start-up, loader, standard operations, monitor, and utility commands are listed, and command minimal abbreviations, when appropriate, are noted. Memory aids for service addresses are included.

Data Networking Products Commands Reference

400pp.

Issue 3

255-100-234

Commands associated with BNS-2000 and BNS-2000 VCS/*Datakit II* VCS nodes are described in detail here. Sections include Start-up, Control Computer, Maintenance and Redundancy Control, Utility, Monitor, and Loader commands. Command syntax, examples of user input, and system output reports are included. Commands associated with interface modules or concentrators are documented in specific module references, for example, *Data Networking Products Frame Relay Module Reference*.

Data Networking Products Computer Port Module Reference
160pp. Issue 2 255-100-204

Four Computer Port Modules (CPMs) are covered in this document: the CPM-High Speed (CPM-HS), the interface module that enables *StarKeeper* II NMS connections to BNS-2000 or BNS-2000 VCS; the CPM-422B; and the Computer Port Module Multiple Link (CPMML) and CPMML-HS, both used in LAN configurations. Information on installation, cabling, administration, troubleshooting, and commands is given.

Data Networking Products Frame Relay Module Reference
240pp. Issue 4 255-100-205 ISS 4

All aspects of the interface module that enables both channelized T1/E1 and V.35 frame relay service are covered here. Installation, administration, cabling, troubleshooting, and commands are covered. The Database Entry Forms appendix includes forms for the modules and Data Link Connection Identifiers (DLCIs).

Data Networking Products LAN Protocol Module Reference
200pp. Issue 3 255-100-206

This document describes the LAN Protocol Module (LPM), which provides IP routing to Ethernet and frame relay ports. This module allows Operations Systems (OS) applications on CommKit[®] Host Interface computers to communicate with network elements (for example, switching and transmission equipment) in Central Offices using industry standard TCP/IP. A planning chapter supplements the standard sections on installation, cabling, administration, troubleshooting, and commands.

Data Networking Products M2 Frame Relay Module Reference
240pp. Issue 3 255-100-237

All aspects of the M2 interface module that enables both channelized T1/E1 frame relay service are covered here. Installation, administration, cabling, troubleshooting, and commands are covered. The Database Entry Forms appendix includes forms for the modules and Data Link Connection Identifiers (DLCIs).

Data Networking Products M2 Trunk Module Reference
170pp. Issue 3 255-100-231

Trunks supported in the Series M2 shelf are documented here. These trunks include SMDS and ATM trunks providing connections to, among other products, the Lucent Technologies GlobeView[®]-2000 Broadband System ATM

switch. The trunks covered are the Trunk-T3, Trunk-T3A, Trunk-T3I, Trunk-T3S, Trunk-E3, Trunk-E3A, and Trunk-E3S. (Trunks common to the BNS-2000 Series M1 shelf and the BNS-2000 VCS are covered in the *Data Networking Products Trunk Module Reference*.) Information is given on installation, cabling, administration, troubleshooting, and commands.

Data Networking Products Messages Reference

500pp. Issue 7 255-100-210

Detailed information on BNS-2000 and BNS-2000 VCS/*Datakit II* VCS alarms and status messages for nodes and interface modules is found here. Messages issued by both the Control Computer and Maintenance and Redundancy Control function are listed by their numerical identifiers and fully described. Each entry includes the complete message text as it appears on the administrator's console or printer, an expanded message explanation, and recommended actions to isolate and resolve the problem. An alphabetical directory of message text is also provided. This document is written for network administrators and service technicians. The information it contains is also available on-line through *StarKeeper II* NMS.

Data Networking Products Multipurpose Concentrator Reference

160pp. Issue 2 255-100-228

BNS-2000 and BNS-2000 VCS support the 15-slot Multipurpose Concentrator (MPC). The MPC is described in these sections: Overview, Installation, Administration, Troubleshooting, and Commands. An appendix includes database entry forms that can be photocopied and used for administration records.

This document is intended for installers, administrators, and maintenance and service personnel.

Data Networking Products Multispeed Module Reference

170pp. Issue 2 255-100-207

The Multispeed Module's 12 ports provide high-speed access to devices on LANs, and to dial-in modem pools. Each asynchronous port is individually administrable for speeds ranging from 75 baud to 115.2 Kbps. Information on installation, cabling, administration, troubleshooting, and commands is supplemented with an appendix on EIA leads.

Data Networking Products Planning Guide

232pp.

Issue 4

255-100-230 ISS 4

The *Planning Guide* gives planning information on both BNS-2000 and BNS-2000 VCS/*Datakit II* VCS networks. Major topics covered include equipment characteristics and capacities, network design issues, network addressing, database design, network security planning, site preparation, and interworking with other data switches, including ATM switches. The audience includes network, database, and space planners, and designers.

Data Networking Products Session Maintenance Guide

120pp.

Issue 2

255-100-209

The session maintenance feature enables internodal, connection-oriented calls to be automatically rerouted, and connections maintained, during facility failures. Information for planning, administration, and operations of this feature is given here. This document is designed to be used with the *Data Networking Products Trunk Module Reference*, the *Data Networking Products M2 Trunk Module Reference* (BNS-2000 only), and *StarKeeper II* NMS documents that describe the Network Builder application that administrators use for session maintenance operations, administration, and maintenance.

Data Networking Products Special Module Reference

124pp.

Issue 2

255-100-211

This document describes two modules—the E2A and Synchronous Line Module (SLM)—that can be used only in Switching Control Center Systems (SCCS). The E2A has four asynchronous telemetry ports, for connectivity between SCCS hosts and their analog switches. The four-port SLM provides data connectivity between SCCS and digital switches or electronic equipment that supports the BX.25 Issue 2 protocol. Installation, cabling, administration, troubleshooting, and commands are covered.

Data Networking Products SYNC8 Module Reference

150pp.

Issue 2

255-100-212

This document describes the SYNC8 module (formerly referred to as BSC3270), which provides switched synchronous service supporting the Bisynchronous 3270 terminal protocol. It covers installation, cabling, administration, troubleshooting, and commands.

Data Networking Products Synchronous/Asynchronous Multiplexer Reference

400pp. Issue 4 255-100-203

BNS-2000 and BNS-2000 VCS/*Datakit II* VCS support several Synchronous/Asynchronous Multiplexers (SAMs), which have from 16 to 504 ports that are individually configurable for asynchronous or synchronous service. Both customer premises (CPE) and CO-LAN environments are supported. This document describes SAM hardware and software in the following sections: Overview, Installation, Cabling, Administration, Troubleshooting, and Commands. An appendix gives model database entry forms.

Data Networking Products Terminal User Guide

130pp. Issue 2 255-100-236

From this document, end users at terminals (asynchronous, synchronous, and X.25) can obtain the information they need to log in to the network and change terminal options.

Data Networking Products Terminology

50pp. Issue 6 255-100-201

Specialized terms used throughout the BNS-2000 library are defined here. Intended for all users of the library, this document is especially helpful for readers new to the product.

Data Networking Products Transparent Synchronous Module Reference

180pp. Issue 2 255-100-214

The installation, cabling, administration, and troubleshooting of two Transparent Synchronous Modules are documented in this reference. The TSM8 is an eight-port interface module that can be configured for asynchronous (through predefined destinations only) or transparent synchronous service. The TSM-T1 supports nonswitched transparent synchronous services for terminals, cluster controllers, front-end processors, and host computers, and transport service between two devices using the same protocols (SDLC and HDLC are supported).

Data Networking Products Trunk Module Reference

230pp. Issue 2 255-100-213

This reference describes trunk modules that enable connections between BNS-2000 and BNS-2000 VCS nodes, between BNS-2000 and *Datakit II* VCS nodes, and between nodes and concentrators. It covers the Standard Wire Trunk (SWT), Standard Fiber Trunk (SFT), Trunk-64, Trunk-T1, Trunk-PQ, Trunk-DDS, and Trunk-HS. (Additional trunks

supported in the BNS-2000 Series M2 shelf only are covered in the *Data Networking Products M2 Trunk Module Reference*.) Included is information on installation, cabling, administration, troubleshooting, and commands.

Data Networking Products TY Module Reference

166pp. Issue 2 255-100-215

This document is a complete reference to the TY12 and TY6 modules used for asynchronous connections. The document covers installation, cabling, administration, troubleshooting, and commands. It provides information on TY and Remote-VDM connections and TY EIA lead states in appendixes.

Data Networking Products X.25 and X.25P Module Reference

350pp. Issue 3 255-100-216 ISS 3

Modules that enable two-way X.25 service across a packet-switched network are covered here. In addition to sections on installation, cabling, administration, troubleshooting, and commands, the document includes appendixes that contain I/O distribution board and port specifications, and X.25 RS-232-C and V.35 lead state information.

Data Networking Products X.75 Module Reference

172pp. Issue 3 255-100-21

This document describes the module that allows protocol conversion between asynchronous devices and X.25/X.75 Packet Switched Public Data Networks. Sections on installation, cabling, administration, troubleshooting, and commands are included.

StarKeeper II NMS Publications

StarKeeper II NMS Release 9.0 supports BNS-2000 Release 5.0 as well as many previous product releases. The following documentation is shipped with the *StarKeeper II NMS* product. Documents can also be ordered separately.

StarKeeper II NMS Core System Guide

600pp.

Issue 1

255-114-753

This guide supplements the on-line instructions, forms-based data entry, and on-line help that are provided for *StarKeeper II NMS* installation on a host computer. It describes how to cable and set up a host connection, license *StarKeeper II NMS* software, use a Netstation, back up the system, install a second disk and printer, and troubleshoot problems. Information is applicable to HP[®] systems (Core Systems, Co-resident Systems, or Graphics Systems).

The guide gives administrators instructions on the use of *StarKeeper II NMS* features and capabilities. It includes step-by-step procedures for administering and configuring the system; for using the alarms, billing, and report features; and for setting up connections to monitor nodes. Day-to-day network monitoring and maintenance tasks are also covered.

A complete list of *StarKeeper II NMS* commands is included.

StarKeeper II NMS Graphics System Guide

600 pp.

Issue 1

255-114-752

The guide gives instructions for administering a workstation and tells how to start, administer, and operate the Graphics System Platform to take advantage of the special services and capabilities of the Workstation Administration software, Cut-Through Application capability, and Disk Cleaner Administration software. Directions for maintaining and troubleshooting the system are also given.

The guide describes the Network Builder application, which provides for installation, administration, network database configuration, support of Session Maintenance, analysis of trunking schemes for the network, and support of the Switched Multimegabit Data Service (SMDS) configuration.

The Network Monitor application is also described. This application supports the design, creation, and generation of network maps, and the identification and resolution of network problems.

The Performance Reporter application for administering, running, and scheduling performance reports is also covered. Procedures to obtain and display tabular and graphical performance and traffic reports for nodes are given. Instructions on how to interpret those reports for the efficient use of resources throughout the network are provided.

StarKeeper II NMS Planning Guide

118pp.

Issue 1

255-114-750

The *Planning Guide* gives system designers and planners the information required to plan and implement a *StarKeeper II* NMS installation. It gives an overview of features, and then focuses on supported hardware and software configurations, network planning, and the use of the *StarKeeper II* NMS Configurator Tool. This tool, a diskette included with the guide, estimates the computer resources necessary for a computer system to run *StarKeeper II* NMS. Ordering information is also given.

StarKeeper II NMS Proxy Agent Guide

200pp.

Issue 1

255-114-751

This guide describes the Simple Network Management Protocol (SNMP) Proxy Agent application package for the installation and administration of the SNMP Proxy Agent software on a *StarKeeper II* NMS Core System. The Management Information Bases (MIBs) supported by the SNMP Proxy Agent are also described. The guide is written for network administrators and service planners.

Related Product Publications

The following publications document products that are used with, or features of, the BNS-2000 or BNS-2000 VCS switches.

CommKit Host Interface Release 4.0/4.1 AT&T 386/486 Computers Installation and Administration Guide

372pp. 255-110-115

This guide describes how to install and administer the CommKit Host Interface on AT&T Intel-based computers running UNIX SVR4. It includes control tables, which must be edited for specific network environments, as well as manual pages for all pertinent commands. Detailed administration information includes maintenance and troubleshooting procedures, and setup procedures for remote file sharing and the Transport Library Interface (TLI).

CommKit Host Interface Release 4.2 NCR Series 3000 Microchannel Computers Installation and Administration Guide

398pp. 255-110-124

This document describes how to install and administer the CommKit Host Interface on AT&T Intel-based computers running UNIX SVR4. Control tables, which must be edited for specific network environments, are included, as well as manual pages for all pertinent commands. Detailed administration information includes maintenance and troubleshooting procedures, and setup procedures for remote file sharing and the Transport Layer Interface (TLI).

CommKit Host Interface Release 4.3 StarServer FT Installation and Administration Guide

366pp. 255-110-125

This document describes how to install and administer the CommKit Host Interface on AT&T Intel-based computers running UNIX SVR4. Control tables, which must be edited for specific network environments, are included, as well as manual pages for all pertinent commands. Detailed administration information includes maintenance and troubleshooting procedures, and setup procedures for remote file sharing and the Transport Layer Interface (TLI).

***Datakit II VCS Host Interface for AT&T 6386 WGS
Installation and Administration Guide***

390pp.

255-110-105

This guide describes how to install and administer the CommKit Host Interface on AT&T Intel[®]-based computers running UNIX[®] SVR3. Control tables, which must be edited for specific network environments, are included, as well as manual pages for all pertinent commands. Detailed administration information includes maintenance and troubleshooting procedures, and setup procedures for remote file sharing and the Transport Layer Interface (TLI).

Data Bus Monitor User Manual

50pp.

Issue 1

255-102-200

Feature descriptions, user information, and ordering information for the Data Bus Monitor, which monitors communications between AT&T data switch modules, are included in this manual. Applicable to BNS-2000 VCS.

Internal Interface Specification

250pp.

Issue 2

700-283

This document gives protocol specifications for AT&T data switch network protocols, including Universal Receiver Protocol (URP). Applicable to *Datakit II VCS*.

LCS60 Network Interface for Ethernet Installation and Administration Guide

238pp.

Issue 3

255-111-107

Complete step-by-step installation, configuration, and administration instructions for the LCS60 Network Interface for Ethernet are given here, with detailed examples.

**Network Access Control System
Installation, Operations, and Maintenance Guide**

240pp.

Issue 1

255-102-103

This guide provides complete instructions for installing, operating, and maintaining a Network Access Control System. It describes in detail configuration, customization, and backup and recovery procedures for the network.

Network Access Control System Administration Guide

570pp.

Issue 1

255-102-104

The *Administration Guide* provides complete instructions for administering a Network Access Control System. All Network Access Controller (NAC) security features are described, and the user is told how to implement them. The guide also covers the optional add-on SecurID[®] security feature available with the NAC. It is written for NAC system administrators.