Connectivity now and in the future

IBM 8281 Nways ATM LAN Bridge

Highlights

- ***Bridging for Token Ring or Ethernet***
- ***A gateway to ATM***
- ***Access to the ATM backbone***
- ***Standards-based link to higher capacity networks***

Bridging for Token Ring or Ethernet

You can configure the LAN interface ports as either all Ethernet (V.2 or IEEE 802.3) ports or all Token-Ring (IEEE 802.5) ports. You can start with either two or four LAN ports. The LAN ports provide RJ-45 connectors that can be used for either Ethernet or Token Ring. One AUI connector is also provided for Ethernet on the motherboard, with another AUI connector on the optional daughter card. As a bridge, the 8281 provides efficient transmission from Token Ring to Token Ring or from Ethernet to Ethernet. The bridge provides source-route bridging for Token Ring and transparent bridging for Ethernet. It enables you to set filters to control the traffic flow. In addition, the LAN ports can function in either full-duplex or half-duplex mode.



A gateway to ATM

You can add the ATM connection to the bridge whenever you need it. The 8281 connects to ATM with an optional, 100-Mbps multimode fiber interface. An ATM Forum-compliant standard, LAN Emulation, lets LAN workstations communicate with ATM workstations.

Access to the ATM backbone

Using the bridge as a gateway, you can connect either Ethernet or Token Ring LANs to other LANs of the same type over a high-capacity, ATM backbone. You can add the backbone to your network without changing any of your existing software applications or hardware on the LANs.

Standards-based link to higher capacity networks

The 8281 interoperates with a wide range of other devices. It is fully compliant with Ethernet V2, IEEE 802.3 (Ethernet), IEEE 802.5 (Token-Ring), and the ATM Forum LAN Emulation over ATM: Version 1.0 Specification. The 8281 can be managed by an SNMP manager. The Configuration Utility Program provides a graphical interface for configuration and utility functions, such as microcode upgrade. This program and the 8281 SNMP agent can be accessed through an EIA 232 serial interface with a DB-25 connector on the front panel.

IBM 8281 Nways ATM LAN Bridge at a Glance

Machinetype	8281	
Part numbers	13H6775	IBM 8281 Nways ATM LAN Bridge
	13H6800	Two-port Ethernet or Token Ring Adapter feature (Feature Code 6800)
	13H6812	100-Mbps ATM Adapter feature (Feature Code 6812)
Bridging	Ethernet	Transparent bridging supported
	Token Ring	Source-route bridging
Filtering	Ethernet	MAC address, Source SAP and supported Ethernet type
	Token Ring	Hop count, Source SAP, SNAP header, MAC address and Ring number
ATM support	ATM Forum UNI Specification V3.1; frames are transferred across ATM using AAL-5.	
Standards support	LAN	ARP (RFC 826) IEEE 802.1D (Spanning Tree) IEEE 802.3 (Ethernet) IEEE 802.5 (Token-Ring) SLIP (RFC 1055) SNMP (RFC 1157) TFTP (RFC 1350) ATM AAL 5 LANE Version 1.0 ILMI UNI 3.1 ATM Forum Compliant 100 Mbps Taxi
MIB support	LAN	Bridge MIB (RFC 1493) Ethernet-Like Interface (RFC 1643) MIB II (RFC 1213) Interface MIB (RFC 1573) Source Route Bridging (RFC 1525) Token Ring MIB (RFC 1231) IBM extension to RFC 1231 ATM RFC 1695 ATOM MIB ATM Forum ILMI MIB ATM Forum LANE Client MIB
Connections	ATM	100-Mbps, multimode fiber interface (as defined in ATM Forum UNI Specifications V3.1); duplex SC connection front-panel status LEDs. Ethernet Two, RJ-45 shielded connectors for 10BASE-T for each LAN Attachment Module (base or optional feature). One 15-pin, 802.3 standard AUI interface is also provided to be used instead of one of the RJ-45 connectors. Front-panel status LEDs are provided. Token Ring Two, RJ-45 shielded connectors for each LAN Attachment Module (base or optional feature). STP or UTP cabling can be used with the appropriate connectors or conversion cables. Front-panel status LEDs are provided. EIA 232 One EIA 232 serial port is provided with a DB-25 connector on the front panel. You can access the Configura tion and Management Utility from a workstation attached to this port.
Cabling	Cabling is the responsibility of the purchaser.	
Physical specifications	Width	483 mm (19 in.)
	Depth	508 mm (20 in.)
	Height	133 mm (5.25 in.)
	Weight	11.4 kg 25 lb
Operating Environment	Temperature 10 to 40 C (50 to 100 F) Relative humidity 8 to 80% Maximum wet-bulb temperature 27 caloric value 80F; Kcal/hr Electrical power 200 VA Noise level Equipment designed to meet or exceed parameters specified in IBM C-S1-1710-006 Product Category OA-Equipment for use in Manufacturing/Utility Areas (less than 74 dB)	
Warranty period	One year	

About Nways

Nways is IBM's family of hardware and software products to build open, standards-based, distributed networks for today and tomorrow. The Nways family includes adapters, hubs, switches, bridges, concentrators and routers for ATM, Ethernet, Token-Ring, FDDI, TCP/IP and APPN(r) networks. Wire-based and wireless communications are supported.

For more information

To find out more about the 8281 ATM LAN Bridge and other high performance IBM communications and networking products, contact your IBM representative or call IBM Direct at 1 800 IBM-Call (1 800 426-2255). You can also access the IBM Networking Home Page at http://www.raleigh.ibm.com.

Copies of this specification sheet can be obtained from the IBM Fax Information Service by dialing 1 800 IBM-4-FAX (1 800 426-4329) in the U.S. or Canada or by dialing (415) 855-4329 outside the U.S. or Canada and requesting document number 2435.



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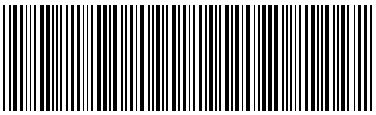
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