

Madge Source

How to Find Us

Madge Networks

AMERICAS

2310 North First Street
San Jose, CA 95131-1011
United States
Tel +1 408 955 0700
Fax +1 408 955 0970
<http://www.madge.com>

ASIA, AUSTRALIA & NEW ZEALAND

12/F Li Po Chun Chambers
189 Des Voeux Road
Central
Hong Kong
Tel +852 2593 9888
Fax +852 2519 8022
<http://www.madge.com>

Other Services

Internet address: support@madge.com
Worldwide Web address: <http://www.madge.com>
Madge Forum on CompuServe: GO MADGE
For product information by return fax, call MADGEFAX: +1 408 383 1002

EUROPE, MIDDLE EAST & AFRICA

Knaves Beech Business Park
High Wycombe, Bucks
HP10 9QZ
England
Tel +44 1628 858000
Fax +44 1628 858011
<http://www.madge.com>

JAPAN

Mita NN Building
1-23, Shiba 4-chome
Minato-ku, Tokyo 108
Japan
Tel +81 3 5232 3281
Fax +81 3 5232 3208
<http://www.madge.com>

Technical Support

Madge Networks

In this country	Call this number
AMERICAS	1 800 876 2343
AUSTRALIA	24186400
AUSTRIA	0660 8366
BELGIUM	0800 10485
DENMARK	800 17649
FINLAND	0800 118 074
FRANCE	05 90 82 50
GERMANY	0130 868828
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ISRAEL	177 440 2530
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PORTUGAL	0505 444602
SINGAPORE	800 852 3151
SOUTH AFRICA	0800 991013
SPAIN	900 974412
SWEDEN	020 793127
SWITZERLAND (FRENCH)	155 6432
SWITZERLAND (GERMANY)	155 1057
THAILAND	2231 8191
UNITED KINGDOM	0345 125539
EUROPE	44 1628 858700

Contents

- 1 About Madge Networks**
- 2 ATM Solutions**
- 3 Modular Switched and Shared Solutions**
- 4 Stackable and Standalone Hubs
and Switches**
- 5 Network Adapters**
- 6 Network Management**
- 7 WAN Access and Switching Solutions**
- 8 Video Networking Solutions**
- 9 Professional Services**
- 10 Products At A Glance**
- 11 Index**

About Madge Networks



As a leading, worldwide supplier of end-to-end switched networking solutions, Madge's strategy is to provide large enterprises with best-of-class end-to-end switching solutions as they deploy applications that require the integrated delivery of data, voice, and video.

Madge has risen rapidly to become one of the largest networking vendors in the world by bringing to market a wide range of products based on its own technology, including switches, modular and stackable hubs, enterprise network management software, and adapters.

Distinguished for offering the broadest line of ATM, LAN, and WAN access switches in the networking business, Madge has a technology power base that enables it to deliver network switching around the globe and shape the future of switched networks.

The company is recognized throughout the network computing industry for its technology excellence and leadership, customer support without limits, and end-to-end expertise in networking. Madge's customers comprise the world's largest users of information technology who depend on their networks to handle their most critical enterprise applications.

ATM Solutions



ATM Solutions

Madge Networks offers the industry's first fully-switched family of standards-based products for integrating ATM into mainstream business networks. Madge ATM solutions feature interoperability, reliability, and manageability.

The Madge ATM product family provides affordable ATM to the desktop for ATM applications and a strategic, cost-effective migration path to a powerful backbone technology. Madge has the widest range of ATM LAN solutions, which includes backbone switching, access switching, and LAN Emulation software for both Ethernet and Token Ring, plus workgroup switching and adapters for both 25 Mbps and 155 Mbps. With this broad product line, Madge Networks is able to deliver complete end-to-end switched network solutions integrating Ethernet, Token Ring, and ATM.

Collage 280 Workgroup ATM Switch

Collage Workgroup ATM



The Collage 280 Workgroup ATM Switch offers adaptable switching between Ethernet and ATM. The optional Stacking Bus allows up to 12 switches to be stacked giving up to 144 desktop ports. Network option slots provide extensive connectivity between the switch and other network devices. Together with LAN Emulation, the Collage 280 greatly eases the migration to ATM-based networking.

Customer Benefits

- Superb investment protection
- Scalable performance for growing networks
- Simple to install, easy to manage

Product Features

- Adaptable ATM and Ethernet switching
- Up to 144 desktop ports
- Integral LANE support

Collage 250 Workgroup ATM Switch

Collage Workgroup ATM



The Collage 250 Workgroup ATM Switch offers highly cost-effective ATM switching. The optional Stacking Bus allows up to 12 switches to be stacked giving up to 144 desktop ports. Network option slots provide extensive connectivity between the switch and other network devices. Together with LAN Emulation, the Collage 250 greatly eases the migration to ATM-based networking.

Customer Benefits

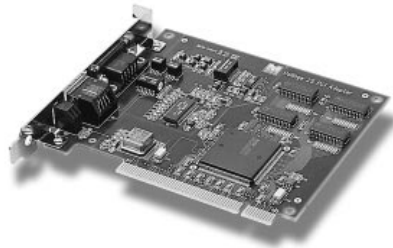
- Highly cost-effective desktop ATM
- Scalable performance for growing networks
- Simple to install, easy to manage

Product Features

- Integral LANE support
- Up to 144 desktop ports
- Plug 'n' Play device

Collage 25 Adapter

Collage Workgroup ATM



The Collage 25 Client Adapter brings the full benefits of 25.6 Mbps ATM to the desktop at a breakthrough price. The adapter features an in-house designed, high-performance ASIC for Segmentation and Reassembly (SAR) and supports both category 3 UTP as well as STP cabling. An easy-to-use management facility and local control and configuration capabilities ensure efficient, trouble-free operation.

Customer Benefits

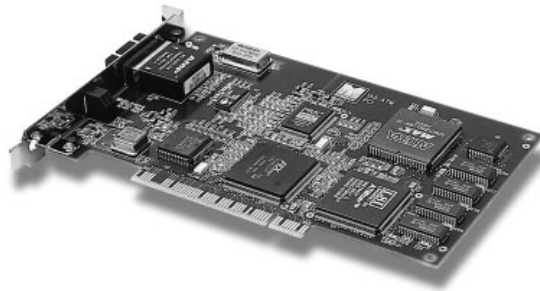
- Affordable ATM at the desktop
- Investment protection with Madge LAN Emulation
- Fully ATM standards compliant

Product Features

- Major software content
- Custom designed ASIC
- Supports category 3 cabling

Collage 155 Adapter

Collage Workgroup ATM



Collage 155 Client and Server Adapters deliver the ultimate in performance at 155 Mbps for data-intensive server and cost-effective client applications. The adapters use a high-performance architecture and high-speed processor-based silicon technology for Segmentation and Reassembly (SAR). They offer a range of Bus types with multimode fiber or copper interfaces for flexible network integration. The easy-to-use management facility and local control and configuration capabilities ensure efficient, trouble-free operation.

Customer Benefits

- Unsurpassed 155 Mbps ATM performance for the client and server
- Investment protection with Madge LAN Emulation
- Fully ATM standards compliant

Product Features

- PCI Server, EISA Server and PCI Client adapters
- High-performance architecture
- Multimode fiber or copper interfaces

Collage Backbone and Access Switches

An affordable and complete solution for integrating ATM in the backbone, which offers standards-based interoperability, reliable backbone performance, and seamless integration of legacy networks.

Collage 740 Backbone ATM Switch

Collage Backbone and Access Switches



The Collage 740 Backbone ATM Switch is a non-blocking 2.6 Gbps ATM switch intended for backbone and high-performance workgroup ATM applications. It supports up to 16 ports at 155 Mbps. Designed with future enhancements in mind, it has the processing power needed for AMON™ and will offer ABR/ER support as an add-in upgrade.

Customer Benefits

- High network productivity
- Flexible network design through interoperability and standards compliance
- Investment protection against emerging standards

Product Features

- Industry-leading ATM switch performance
- Supports standard UNI, LANE, PNNI, SNMP and RFC MIBs
- Supports Madge TrueView™, HP OpenView, IBM NetView/6000, SNMP and other management platforms

Collage 540 Token Ring to ATM Access Switch

Collage Backbone and Access Switches



The Collage 540 Token Ring to ATM Access Switch has 10 Token Ring ports (either STP or UTP) and one or two 155 Mbps ATM interfaces. The switch is intended for applications requiring high-performance and low-latency switching to ATM—making it ideal for applications where workstations reside on Token Ring and server resources are connected directly to ATM.

Customer Benefits

- High network productivity for legacy networks
- Flexible network design through interoperability and standards compliance
- Ease of integration into existing networks

Product Features

- Direct switched access to 155 Mbps ATM Interfaces
- Supports standard UNI, LANE, PNNI, SNMP and IETF MIBs
- Supports Madge TrueView, HP OpenView, IBM NetView/6000, SNMP and other management platforms

Collage 530 Ethernet to ATM Access Switch

Collage Backbone and Access Switches



The Collage 530 Ethernet to ATM Access Switch provides high-speed switching between 16 Ethernet LANs and also gives them seamless access to a 155 Mbps ATM backbone. Each Ethernet segment receives a dedicated 10 Mbps switch connection plus transparent access to an ATM backbone via standard LAN Emulation. Special Quality of Service and flow control features enhance network performance and greatly ease the migration to ATM.

Customer Benefits

- Exceptional investment protection
- Easy migration to ATM
- Boosts network performance

Product Features

- Fully compliant with ATM Forum UNI 3.0/3.1
- Virtual LANs span the ATM backbone
- Fully manageable

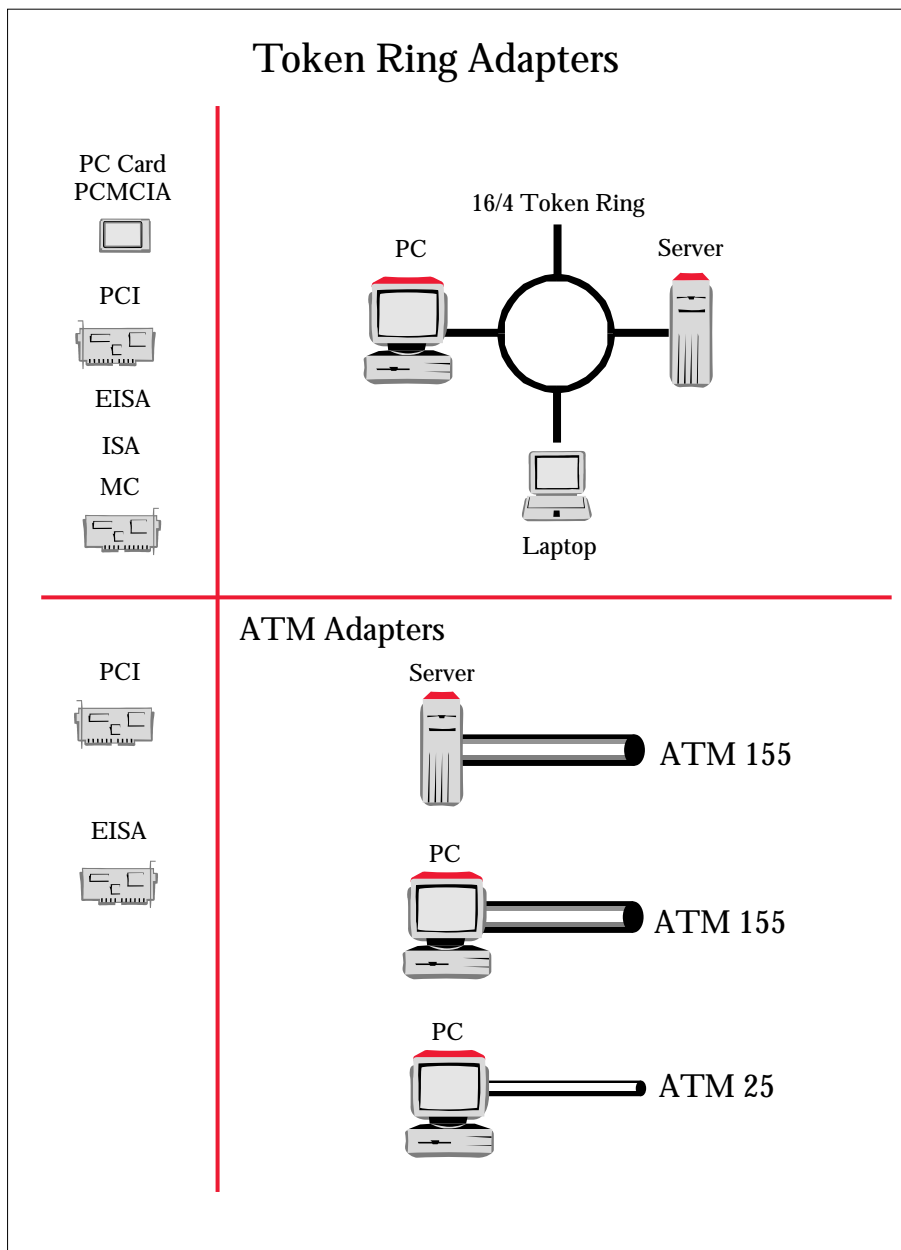
Modular Switched and Shared Solutions

Modular Switched and Shared Solutions

Madge's modular networking components provide everything your enterprise network needs to help you remain competitive, including flexible connectivity, high-performance switching, complete fault-tolerance, full manageability, and exceptional investment protection.

Madge MultiNet™ hubs form the foundation of this total networking solution. Their advanced backplane architecture supports a broad range of both shared and switched protocols, including Ethernet, Fast Ethernet, Token Ring, FDDI, and ATM. A multitude of versatile connectivity, switching, and internetworking modules plug into the hubs, giving organizations the flexibility to design and implement high-performance, end-to-end network solutions that are optimal for today, scalable for tomorrow, and ready for the future.

Modular Switched and Shared Solutions



Customer Benefits

Madge's unique ability to integrate shared and switched LANs in the same modular hub lets you gradually migrate your network to switched LANs, and ultimately, to ATM, while leveraging existing network infrastructure to the fullest. Fault-tolerant hubs and modules reduce costly network downtime and allow users to be more productive.

Product Line Features

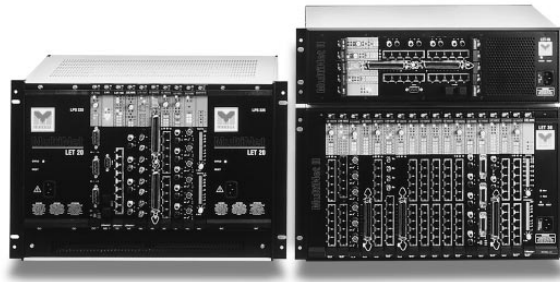
- Unparalleled investment protection
- Versatile standards-compliant connectivity for all protocols
- Backward and forward compatibility
- Unified platform for shared and switched networks
- Full management of all components
- Designed for complete fault-tolerance

MultiNet Enterprise Switching Hubs

Madge MultiNet hubs provide a flexible foundation for your enterprise network. In fact, only MultiNet hubs support easy coexistence and migration from shared LANs to switched LANs to ATM with no hub or backplane upgrade.

LET-36, LET-20 and LET-10 Hubs

MultiNet Enterprise Switching Hubs



Madge MultiNet LET-36, LET-20, and LET-10 enterprise switching hubs are the foundation for end-to-end networking solutions that make it easy to adopt high-speed switching technologies, including ATM. The hubs' sophisticated backplane integrates all popular protocols of shared and switched LANs within a single enclosure. Madge's broad range of standards-compliant connectivity, switching, internetworking, and management modules plug directly into the hubs, providing a flexible network solution.

Customer Benefits

- The ultimate in flexibility
- Fully manageable
- Unparalleled investment protection

Product Features

- Switched and shared LANs in the same hub
- Supports Ethernet, Token Ring, FDDI, and ATM
- Outstanding fault-tolerance

MultiNet Backup Power Supplies

Backup power supplies are a key element in the design and implementation of fault- tolerant networks. That's why Madge protects each MultiNet hub with customized backup power units.

BUPS-36/01, LPS-225 and BUPS-10

MultiNet Backup Power Supplies



External Backup Power Supplies provide a critical layer of fault-tolerance to Madge MultiNet Enterprise Switching Hubs. Automatic, real-time switchover from primary to secondary power source guarantees an uninterrupted power supply to the hub and provides an important reliability factor in the design of fault-tolerant networks. Each MultiNet hub model has a custom backup power supply. The BUPS-36/01 fits the LET-36 hub, the LPS-225 protects the LET-20 hub, and the BUPS-10 provides backup for the LET-10 hub.

Customer Benefits

- Reduces network downtime
- Increases overall network reliability
- Space-saving design

Product Features

- Automatic, real-time recovery
- Hot swappable for easy maintenance
- Dual power option for separate power sources

LANswitch

Madge's specialized LANswitch™ modules let you build scalable, high-performance switching systems that leverage your investment in existing network equipment to the fullest.

LSA ATM Access Switch

LANswitch



The LSA ATM Access Switch uses standards-compliant LAN Emulation to create a seamless connection between switched Ethernet LANs and high-speed ATM backbones. LAN Emulation establishes a gradual and easy migration path to ATM while protecting your investment in existing LAN infrastructure. The LSA is part of a complete family of LANswitch products designed to dramatically improve network performance and user productivity.

Customer Benefits

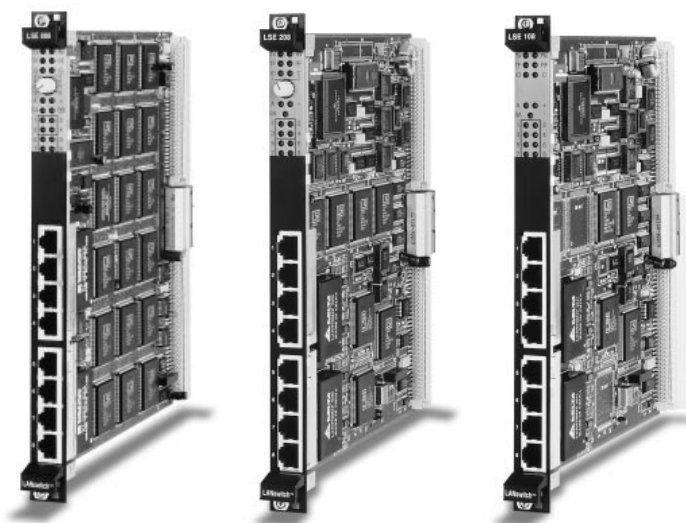
- Fast and efficient client/server networking
- Seamless and simple ATM integration
- Flexible virtual LANs

Product Features

- Standards-compliant LAN Emulation
- Virtual LANs span the ATM backbone
- Fully manageable

LSE-808/208/108 Ethernet Workgroup Switches

LANswitch



The LANswitch LSE-808, LSE-208, and LSE-108 comprise a versatile family of Ethernet (10BASE-T) Workgroup Switches that make it easy to allocate the right amount of bandwidth to all network users. Advanced VLSI switching engines and effective congestion management guarantee maximum throughput under all network conditions. Built-in quality of service features support multimedia and other delay-sensitive applications, and establish a smooth migration path to ATM-based networking.

Customer Benefits

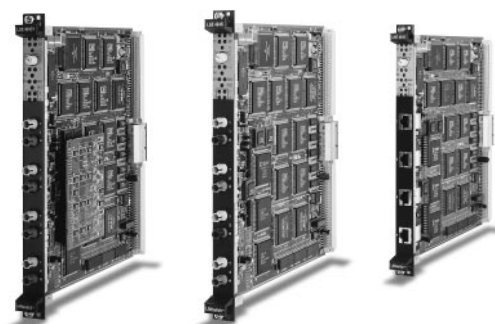
- Guaranteed investment protection
- Fast and efficient network performance
- Unlimited scalability

Product Features

- High throughput and zero packet-loss
- Full SMONTM monitoring
- ATM-like Quality of Service

LSE-404S Ethernet Segment Switches

LANswitch



LANswitch LSE-404S segment switches boost network performance and offer exceptional investment protection. The LSE-404S/RJ enhances the performance of popular 10BASE-T networks by providing wire-speed switching between busy Ethernet segments. The LSE-404S/FL uses 10BASE-FL (FOIRL) fiber-optic media to create reliable full-duplex backbone connections between LANswitch hubs, while the LSE-404S/FB brings the benefits of switching to your synchronous Ethernet networks.

Customer Benefits

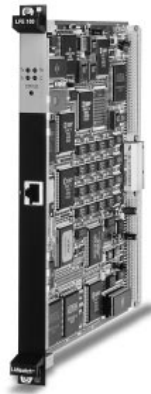
- Flexible configuration options
- Fast and efficient network performance
- Unlimited scalability

Product Features

- High throughput and zero packet-loss
- Full SMON monitoring
- ATM-like Quality of Service

LFE-100 Fast Ethernet Server Switch

LANswitch



The LFE-100 Fast Ethernet server switch boosts network performance by providing busy servers with all the bandwidth they need to support even the most demanding clients on corporate networks. A 100 Mbps data transfer rate, plus compatibility with the 10BASE-T standard, make the LFE-100 a cost-effective upgrade that can be easily integrated into existing networks. The module's ASIC-based switching technology delivers low-latency throughput and ensures full non-blocking access under all load conditions.

Customer Benefits

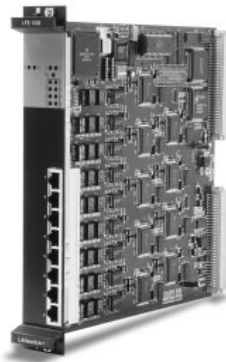
- Fast and efficient client/server networking
- Uses standard adapters, drivers, and cabling
- Eliminates server bottlenecks

Product Features

- 100BASE-TX, category 5 UTP
- Virtual LAN configurations
- ATM-like Quality of Service

LFE-1008 Fast Ethernet Switch

LANswitch



The LFE-1008 Fast Ethernet Switch boosts network performance by providing busy servers and power users with all the bandwidth they need for efficient and productive networking. Eight ports, a 100 Mbps data transfer rate, and compatibility with the 10BASE-T standard make the LFE-1008 a cost-effective upgrade that can be easily integrated into existing networks. ASIC-based switching technology delivers low-latency throughput and ensures full non-blocking access under all load conditions.

Customer Benefits

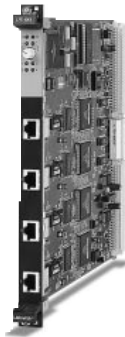
- Fast and efficient client/server networking
- Uses standard adapters, drivers, and cabling
- Cost-effective

Product Features

- High throughput with zero packet-loss
- Virtual LAN configurations
- ATM-like Quality of Service

LFE-4004 Fast Ethernet Switch

LANswitch



The Madge LFE-4004 boosts network performance by giving busy servers the bandwidth they need to provide the level of service and response time demanded from the network. Four copper ports, a 100 Mbps data transfer rate, plus compatibility with the extensive Ethernet installed base, make the LFE-4004 a cost-effective upgrade that can be easily integrated into existing networks.

Customer Benefits

- Eliminates server bottlenecks and boosts network performance
- Protects investment by minimizing the risk and expense of technology upgrades
- Enables easy integration of high-bandwidth applications

Product Features

- Wire speed 100BASE-TX, Category 5 UTP
- Virtual LAN configurations
- Built-in mechanisms provide Quality of Service (priority and flow control with zero packet loss)

LEB-200

Backbone Switch

LANswitch



Madge's LEB-200 module sets up switched Fast Ethernet backbone links between LANswitch hubs and Visage workgroup switches. The LEB-200 uses fiber-optic media and standard SC connectors to deliver full-duplex, 200 Mbps connections (with redundancy) between switching hubs. Outstanding performance and reliability make the LEB-200 the perfect choice for building collapsed backbones and centralizing resources.

Customer Benefits

- Improves network performance and facilitates the integration of high-bandwidth applications
- Minimizes risk and expense of upgrade
- Enables cost-effective centralization of servers

Product Features

- Full duplex, wire-speed, fiber-optic backbone connection
- Fully managed with VLANs that span the backbone
- Built-in mechanisms provide Quality of Service

LHB Fiber-Optic Backbone Switch

LANswitch



The LANswitch LHB-100 Backbone Switch extends the performance advantages of LAN switching across the campus network by providing a high-speed backbone link between LANswitch hubs. The module uses fiber-optic media and standard MIC connectors to create a full 100 Mbps data pipeline in both transmit and receive directions (with full-duplex throughput of 200 Mbps). The LHB's scalable buffer and powerful routing algorithm handle peak traffic loads with ease.

Customer Benefits

- Supports multimedia applications
- High-speed campus-wide networking
- Enables gradual migration to ATM

Product Features

- Virtual LANs across the backbone
- 200 Mbps full-duplex throughput
- Effective congestion management

LSF-100 FDDI Backbone Switch

LANswitch



The LANswitch LSF-100 FDDI Backbone Switch maximizes your investment in existing FDDI network infrastructure. Seamless integration of LANswitch and FDDI technologies ensures that clients and servers across the campus network enjoy fast and efficient data communications. The LSF-100 provides a high-speed switched link between campus-wide FDDI backbones and LANswitch hubs. The module's powerful routing algorithm easily handles peak traffic loads. Virtual LANs can span the backbone to deliver flexible and secure networking.

Customer Benefits

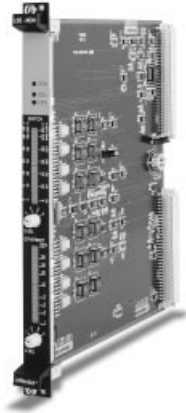
- FDDI investment protection
- Efficient backbone switching
- Enables gradual migration to ATM

Product Features

- Virtual LANs across the backbone
- Reliable 100 Mbps FDDI
- Ethernet-FDDI translation bridging

LSE-MON Cellenium/ Ethernet Bus Monitor

LANswitch



The LANswitch LSE-MON helps keep tabs on network utilization. LSE-MON plugs directly into Madge LANswitch hubs where it continuously monitors traffic levels on the high-speed Cellenium™ Bus and the backplane Ethernet buses. Peak and current traffic indicators give network managers a clear picture of past and present network activity. Passive monitoring accurately measures bus utilization without affecting individual transmissions or overall network performance.

Customer Benefits

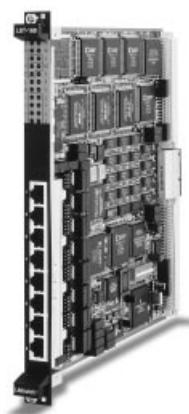
- Timely and accurate statistics
- Helps troubleshoot the network
- Easy-to-use

Product Features

- Ethernet collision indicator
- Peak traffic indicator
- Easy-to-read bar graphs

LST-168 Token Ring Switch

LANswitch



The LST-168 is part of a complete family of LANswitch products that dramatically improve network performance and user productivity. Wire-speed switching with zero packet loss provides the bandwidth required to overcome backbone bottlenecks and to deliver fast and efficient data transfer between Token Rings. The LST-168 integrates effortlessly into Token Ring environments based on transparent bridging and eliminates backbone bottlenecks with minimal network changes.

Customer Benefits

- Boosts Token Ring performance
- Easy integration into existing network
- Unlimited scalability

Product Features

- Ring-in/Ring-out and lobe connectivity
- Fully manageable
- Automatic beacon avoidance mechanism

LNS Network Layer Switch

LANswitch

The LNS equips the LANswitch with Layer Three Switching, substantially enhancing the strengths of the LANswitch as a backbone hub. It allows inter-Virtual LAN and inter-subnet communication, and protects investment by maintaining existing Layer Three structures in switched networks while requiring no changes to be made at the desktop.

Customer Benefits

- Increases network speed through wire-speed switching between VLANs and subnets
- Protects investment by maintaining existing layer three structures in switched networks
- Reduces cost-of-ownership of routers by freeing them for WAN access and high-end routing tasks

Product Features

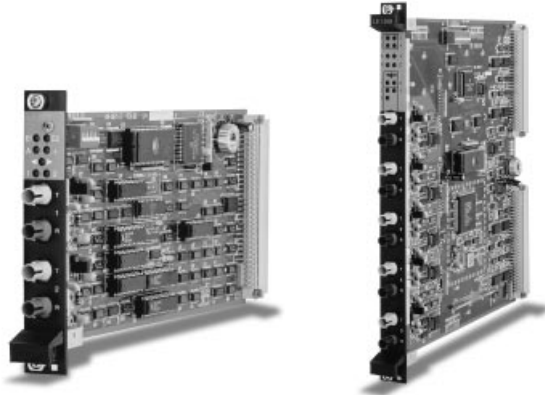
- IP and IPX protocol support
- RIP/OSPF support
- Policy-based Broadcast and Access control

Shared Ethernet Modules

Madge's wide variety of Ethernet connectivity modules let you exploit MultiNet's modular, scalable architecture to its fullest. All media types with virtually any connector can be interfaced to the hub backplane, giving you a wealth of flexible networking options.

LE-20R, LE-120R FOIRL Modules

Shared Ethernet Modules



The LE-20R and LE-120R comprise a versatile pair of fiber-optic connectivity modules for large area Ethernet networks. The modules fully comply with the 10BASE-FL standard and can be used to create reliable, long-distance backbone links between Ethernet segments or to deliver environment-immune connectivity directly to the user. Multiple bus interfaces and optional redundancy modes ensure complete fault-tolerance for essential network services.

Customer Benefits

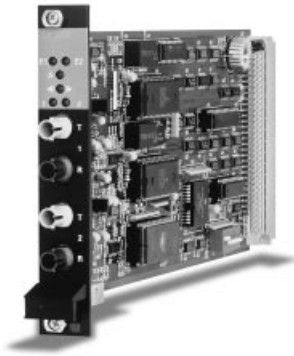
- Flexible network expansion
- Reduces network downtime
- Reliable backbones for large area networks

Product Features

- Popular ST connectors
- Fully manageable
- Redundant port mode with automatic switchover

LE-20N, LE-20S 10BASE-FB Modules

Shared Ethernet Modules



The LE-20N and LE-20S provide standard and single-mode fiber-optic connectivity for large area Ethernet networks. The modules fully comply with the 10BASE-FB standard and can be used to create reliable, long-distance backbone links between Ethernet segments, or to deliver environment-immune connectivity directly to the user. The modules' dual bus interfaces and optional redundancy mode ensure complete fault-tolerance for essential network services.

Customer Benefits

- Flexible network expansion
- Reduces network downtime
- Reliable backbones for large area networks

Product Features

- Popular ST connectors
- Fully manageable
- Redundant port mode with automatic switchover

LE-120Q Fiber-Optic Ethernet Module

Shared Ethernet Modules



The LE-120Q uses synchronous Ethernet signaling to deliver reliable, long-distance backbone connections between Ethernet LANs, or direct links to essential network devices. Static switching between the module's five fiber optic-ports and the hub's four Ethernet buses simplifies the job of implementing adds, moves, and changes to an organization's network by automating these operations in software. The LE-120Q is fully compliant with the 10BASE-FB standard.

Customer Benefits

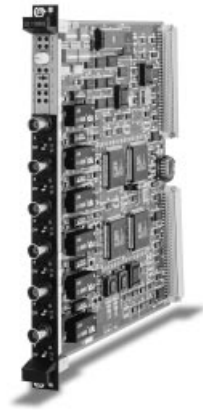
- Simplifies network adds, moves, and changes
- Reduces network downtime
- Reliable backbones for large area networks

Product Features

- Static bus-per-port switching
- Fully manageable
- Redundant port mode with automatic switchover

LE-110BQ Thin Coax Repeater

Shared Ethernet Modules



The LE-110Q is a six-port Ethernet repeater that is fully compliant with the 10BASE-2 standard. All six ports operate independently and provide separate 185 meter coax runs. Static switching between each of the module's BNC ports and the hub's Ethernet buses simplifies the job of implementing adds, moves, and changes to an organization's network by automating these operations in software. Redundant port configurations ensure maximum network uptime.

Customer Benefits

- Simplifies network adds, moves, and changes
- Reduces network downtime
- Investment protection

Product Features

- Static bus-per-port switching
- Fully manageable
- Redundant port and bus configurations

LE-110CQ Thick Coax Repeater

Shared Ethernet Modules



The LE-110Q is a three-port Ethernet repeater that is fully compliant with the IEEE 802.3 standard. All six ports operate independently to provide separate, 50 meter coax runs. Static switching between each of the module's AUI ports and the hub's Ethernet buses simplifies the job of implementing adds, moves, and changes to the network by automating these operations in software. Redundant port configuration ensures maximum network uptime.

Customer Benefits

- Simplifies network adds, moves, and changes
- Reduces network downtime
- Investment protection

Product Features

- Static bus-per-port switching
- Fully manageable
- Redundant port and bus configurations

LE-115Q Thick Coax Transceiver

Shared Ethernet Modules



The LE-115Q is a three-port Ethernet transceiver that provides convenient connections to Ethernet stations, multiport repeaters, or terminal servers. It is fully compliant with the IEEE 802.3 standard. Each port operates independently and performs all standard transceiver functions including 100 percent collision detection and enforcement. Static switching between each of the module's AUI ports and the hub's Ethernet buses simplifies the job of implementing network adds, moves, and changes.

Customer Benefits

- Simplifies network adds, moves, and changes
- Reduces network downtime
- Investment protection

Product Features

- Static bus-per-port switching
- Fully manageable
- Redundant port and bus configurations

LCL-100/MONITOR II Activity Monitors

Shared Ethernet Modules



The MultiNet LCL-100 and MONITOR II modules keep tabs on Ethernet activity in Madge MultiNet hubs. Both modules plug directly into the hub where they continuously monitor and report traffic levels on the backplane Ethernet buses. The LCL-100 also serves as a backup to the hub's internal clock. Peak and current traffic indicators provide a clear picture of past and present network activity. Passive monitoring accurately measures bus utilization without affecting individual transmissions or overall network performance.

Customer Benefits

- Timely and accurate statistics
- Helps troubleshoot the network
- Easy-to-use

Product Features

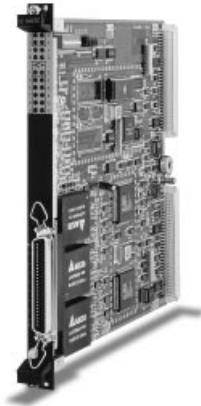
- Ethernet collision indicator
- Peak traffic indicator
- Easy-to-read bar graphs

10 BASE-T Ethernet Modules

Madge offers a complete family of flexible and cost-effective 10BASE-T Ethernet connectivity modules. These innovative 10BASE-T modules provide reliable solutions that meet today's demands for increased network performance.

LE-140XTC 10BASE-T Ethernet Module

10BASE-T



The LE-140XTC is a member of Madge's complete family of flexible and cost-effective Ethernet connectivity modules for MultiNet enterprise hubs. The LE140XTC connects twelve Ethernet stations via a single TELCO connector. 10BASE-T ports support a low-cost twisted pair infrastructure and innovative VLSI provides better reliability and lower power consumption. Redundancy at both bus and port levels with automatic switchover protects critical connections and guarantees maximum network uptime.

Customer Benefits

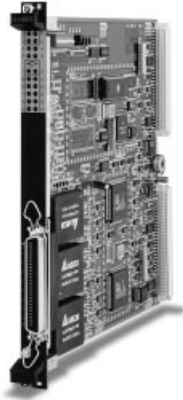
- Standards-compliant
- Reliable connectivity
- Easy expandability

Product Features

- 10BASE-T Plus Mode for superior diagnostics
- Fully manageable
- Redundant port and bus configurations

LE-140XTQ 10BASE-T Ethernet Modules

10BASE-T



The LE-140XTQ and LE-140XTQ/C are part of Madge's complete family of flexible and cost-effective Ethernet connectivity modules for MultiNet hubs. They provide 10BASE-T connectivity for ten Ethernet stations via low-cost, UTP or STP cabling. Redundancy at both bus and port levels with automatic switchover protects critical connections and guarantees maximum network uptime. Static switching between user ports and the hub's four Ethernet buses makes adds, moves, and changes easy.

Customer Benefits

- Cost-effective 10BASE-T connectivity
- Flexible moves and changes
- Easy expandability

Product Features

- Static bus-per-port switching
- 10BASE-T Plus Mode for superior diagnostics
- Redundant port and bus configurations

LE-140XTF 10BASE-T Mixed Media Module

10BASE-T



The LE-140XTF brings mixed media connectivity to Madge's complete family of flexible and cost-effective Ethernet connectivity modules for MultiNet hubs. Twelve 10BASE-T ports plus two synchronous fiber ports offer flexible configuration options including twisted pair to the desktop with fiber-optic backbone links. Port and bus redundancy protects critical connections and reduces network downtime.

Customer Benefits

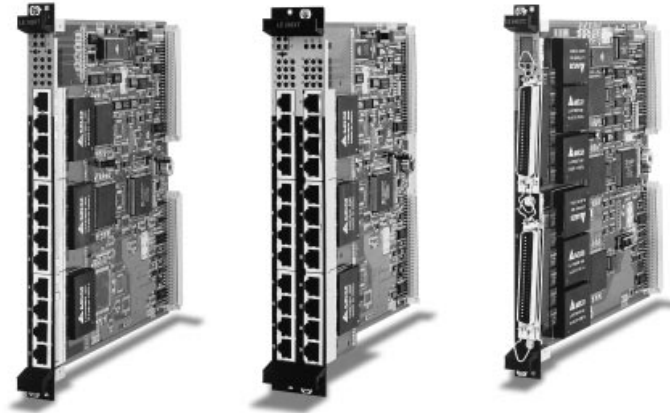
- Enables flexible Ethernet topologies
- Cost-effective
- Easy expandability

Product Features

- Redundant fiber-optic connections
- 10BASE-T Plus Mode for superior diagnostics
- Fully manageable

LE-180XT, LE-280XT and LE-240XTC

10BASE-T



Madge's innovative family of high port-density modules delivers flexible and cost-effective Ethernet connectivity. The LE-180XT, LE-280XT and LE-240XTC modules let you select the number of ports and connector types that best suit your networking requirements. 10BASE-T ports support a low-cost twisted pair infrastructure while high port-density maximizes the available Ethernet links per MultiNet hub. Redundancy at both bus and port levels protects critical connections and reduces network downtime.

Customer Benefits

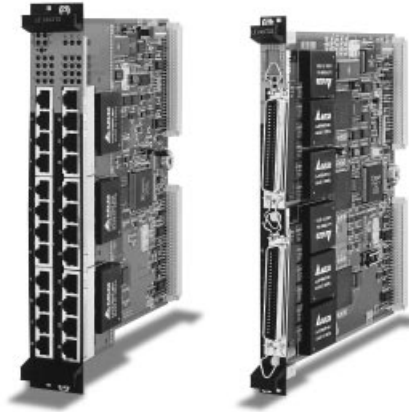
- More ports per module
- Cost-effective
- Standards-based connectivity

Product Features

- UTP/STP cabling with RJ45 or TELCO connectors
- Up to 432 ports in a single hub
- Redundant port and bus configurations

LE-280XTS/LE-240XTCS Security Modules

10BASE-T



Madge LE-280XTS and LE-240XTCS modules employ powerful security features at the physical level to protect the Ethernet network against “sniffers” and unauthorized intruders. Per-port Eavesdropping Protection safeguards sensitive data by preventing users from “listening” to sessions between other stations on the same Ethernet segment. Intrusion Control supervises network access and makes sure that only authorized stations are allowed to attach to the network.

Customer Benefits

- Effective network security
- High port-density per module
- Cost-effective 10BASE-T

Product Features

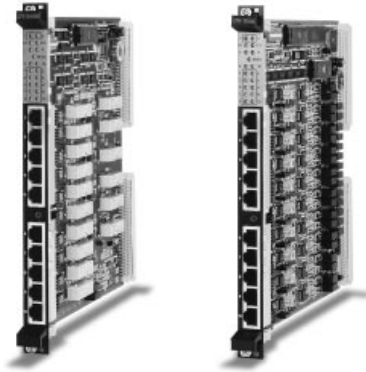
- Multitiered, physical-level security
- UTP/STP cabling with RJ45 or TELCO connectors
- Redundant port and bus configurations

Token Ring Modules

Madge Networks' Token Ring modules for MultiNet hubs provide flexible, cost-effective connectivity options for today's modular Token Ring environments.

LTR-104/SN and LTR-104A MAU Modules

Token Ring Modules



The LTR-104/SN and LTR-104A are part of Madge's complete family of flexible and cost-effective Token Ring MAU modules for MultiNet hubs. Flexible UTP or STP cabling is selectable per port. Beacon Avoidance sensors on each port detect wrong-speed devices and prevent them from entering the ring. Optional Ring-in and Ring-out ports provide a convenient way to extend the ring and enable it to expand beyond the boundaries of the hub.

Customer Benefits

- Versatile cabling options
- Reliable, fail-safe performance
- Easy expandability

Product Features

- Active ports with retiming and full signal regeneration
- Beacon avoidance and token cable protection
- Fully manageable

LTR-104/F Fiber-Optic MAU Module

Token Ring Modules



The LTR-104/F brings dependable fiber-optic connectivity to Madge's complete family of flexible and cost-effective Token Ring MAU modules for MultiNet hubs. Noise-immune fiber-optic media, together with optional Ring-in and Ring-out ports, provide a reliable way to extend the ring over long distances. Ring integrity is further enhanced by optical cable protection that detects cable breaks and performs instantaneous loopback. The LTR-104/F operates at either 4 or 16 Mbps.

Customer Benefits

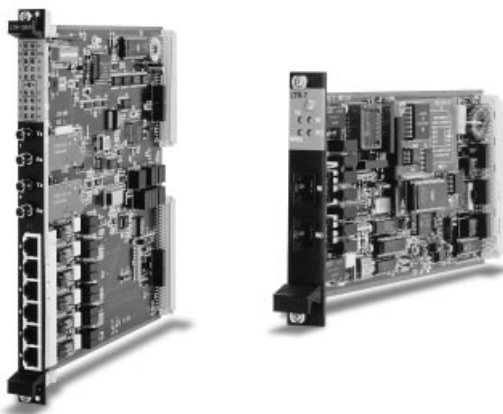
- Long-distance Token Ring connections
- Reliable, fail-safe performance
- Easy expandability

Product Features

- Optional Ring-in/Ring-out ports with redundancy
- Fiber-optic cable protection
- Fully manageable

LTR-108/F and LTR-T Repeaters

Token Ring Modules



The Madge LTR-T is a straightforward repeater that operates in pairs to regenerate signals on critical inter-hub connections over UTP or STP cabling. The LTR-108/F is a mixed media repeater with six UTP/STP ports plus two fiber-optic ports that allow users to configure long-distance backbone links to larger Token Ring structures.

Customer Benefits

- Maximizes hub utilization
- Flexible Token Ring topologies
- Fault-tolerant

Product Features

- Full signal regeneration & jitter attenuation over long distance links
- 4 or 16 Mbps
- IEEE 802.5 standard-compliant

FDDI Modules

Madge Networks' versatile family of FDDI concentrator modules delivers high-bandwidth, fault-tolerance and a comprehensive array of FDDI cabling options for enterprise LANs.

LFD-104 FDDI Concentrator Modules

FDDI Modules



Madge makes FDDI's inherent features and functions available through its superior FDDI concentrator modules, which plug directly into the MultiNet hub. Whether the FDDI LAN serves as a high-speed backbone or as a maximum bandwidth provider for demanding applications, Madge's family of LFD-104 modules can efficiently connect workstations, bridges, and other FDDI devices using the cable that best suits individual networking needs.

Customer Benefits

- Flexible FDDI cabling options
- High-speed transmission rates
- Fully manageable

Product Features

- Multimode and single-mode interfaces comply with ANSI X3T9.5
- STP/UTP interfaces comply with ANSI TP/PMD standard
- "Dual Homing" backup option

Routers

Madge Networks' complete family of LAN routers provide powerful internetworking solutions for multiprotocol LAN/WAN environments.

IEFN and ITFN Feeder Nodes

Routers



For fast and efficient internetworking between multiple LAN/WAN environments, Madge's IEFN (Ethernet) and ITFN (Token Ring) Feeder Nodes provide powerful routing solutions. Two WAN ports individually interface with the backplane segments to allow flexible configuration of bridging and routing services. Intelligent feeder nodes automatically learn the network configuration and set up efficient routing schemes. Built-in fault-tolerance maximizes network uptime.

Customer Benefits

- Efficient internetworking
- Fully manageable
- Flexible LAN/WAN connectivity

Product Features

- High filtering and forwarding rates
- Flexible switching between backplane interfaces
- Supports all popular routing, bridging, and WAN protocols

IEQR and IEFR Ethernet/FDDI Routers

Routers



The Madge IEQR Router speedily routes packets between four Ethernet segments on the MultiNet hub backplane. The IEFR also routes between four Ethernet segments plus an FDDI LAN, which provides an ideal internet-working solution for Ethernet environments using FDDI backbones. Dynamic router configuration, full manageability, and support for all popular routing and bridging protocols come together to deliver seamless LAN-to-LAN communications.

Customer Benefits

- Versatile LAN to LAN connectivity
- High-performance routing
- Fully integrated with MultiNet hubs

Product Features

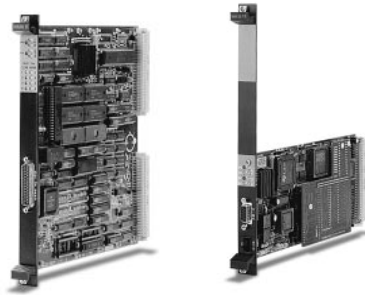
- High filtering and forwarding rates
- Automatically learns network configuration
- Optional connection to Cellenium Bus or additional Ethernet LAN

Network Management Agents

Madge Network Management Agents work in conjunction with the MultiMan™ Network Management Applications to put comprehensive network control and analysis at your fingertips.

NMA-II and NMA-36/TR

Network Management Agents



The Madge NMA-II and NMA-36/TR management agents act as the “eyes and ears” of Madge’s MultiMan Network Management System. The NMA-II collects and reports information about the hub and its Ethernet modules, while the NMA-36TR does the same for Token Ring modules. These in-hub assistants give network managers complete remote configuration control of the hub and all its resident modules. They also provide instantaneous and cumulative statistics for effective LAN management.

Customer Benefits

- Remote control management
- Real-time network monitoring
- Enables remote configuration of the hub and modules

Product Features

- Fully integrated with MultiMan network management system
- Agent updates via easy software download
- Easy configuration and transparent operation

NMA-RE and NMA-RT

Network Management Agents



Madge's NMA-RE and NMA-RT Management Agents harness the power and speed of the Intel i960 chip to provide simultaneous, real-time monitoring of network activity on four independent Ethernet LANs (NMA-RE) or two Token Rings (NMA-TR). Their advanced architecture allows performance monitoring on one network while reporting management information over another. Other agent features include Token Ring beacon resolution and security enforcement.

Customer Benefits

- Comprehensive network monitoring gives complete control
- Real-time network statistics
- Enables remote configuration of the hub and modules

Product Features

- Fail-safe, versatile links to network manager
- Simultaneously monitors multiple LANs in the hub
- Fully integrated with MultiMan network management system

NMA-RS LANswitch SMON Management Agent

Network Management Agents



Madge's revolutionary NMA-RS gives network managers a simultaneous RMON view of traffic patterns for all ports on the LANswitch network. Through the NMA-RS agent, network managers can view how all traffic is actually flowing through the switched network. The agent operates in conjunction with Madge's easy-to-use SMONMaster™ (switch monitoring) and MultiMan (comprehensive network management) applications.

Customer Benefits

- Full visibility of all switch traffic
- Fast and accurate troubleshooting
- Optimization of switch traffic

Product Features

- Switch monitoring based on the RMON standard
- Overall and specific views of switch activity
- Enables remote configuration of the hub and modules (all media)

LANswitch LSE-PM Port Monitor

Network Management Agents

The LSE-PM Port Monitor is part of Madge's industry-leading SMON switch management solution. The LSE-PM captures packets on the Cellenium™ Bus and sends them through its 10BASE-T Ethernet port to an attached packet analyzer or remote probe. The module can monitor and filter up to 10 Mbps of traffic through this Ethernet port. The LSE-PM and Madge's NMA-RS SMON management agent work together to provide a complete picture of network traffic.

Customer Benefits

- Helps diagnose and correct network problems
- Enables use of popular sniffers and analyzers
- Part of Madge's end-to-end switch management solution

Product Features

- Define and control specific packet captures, filters, and storage
- Automatic filter set-up from SMONMaster to LSE-PM
- Communicates with all Madge network management agents

IERP Ethernet RMON Management Probe

Network Management Agents

The Madge IERP RMON Management Probe works with the RMONMaster™ system, enabling continuous monitoring of Ethernet traffic on the network. The IERP plugs directly into Madge MultiNet hubs where it simultaneously monitors four Ethernet segments, and helps identify problems and spot abnormal trends before they affect network users. The probe collects and reports statistics for all RMON MIB groups and is fully compliant with SNMP.

Customer Benefits

- In-depth Ethernet monitoring
- Enables proactive network management
- Exceptional fault-tolerance

Product Features

- Supports all nine RMON MIB groups
- Simultaneous monitoring of multiple Ethernet segments
- Redundant management links

Stackable and Standalone Hubs and Switches

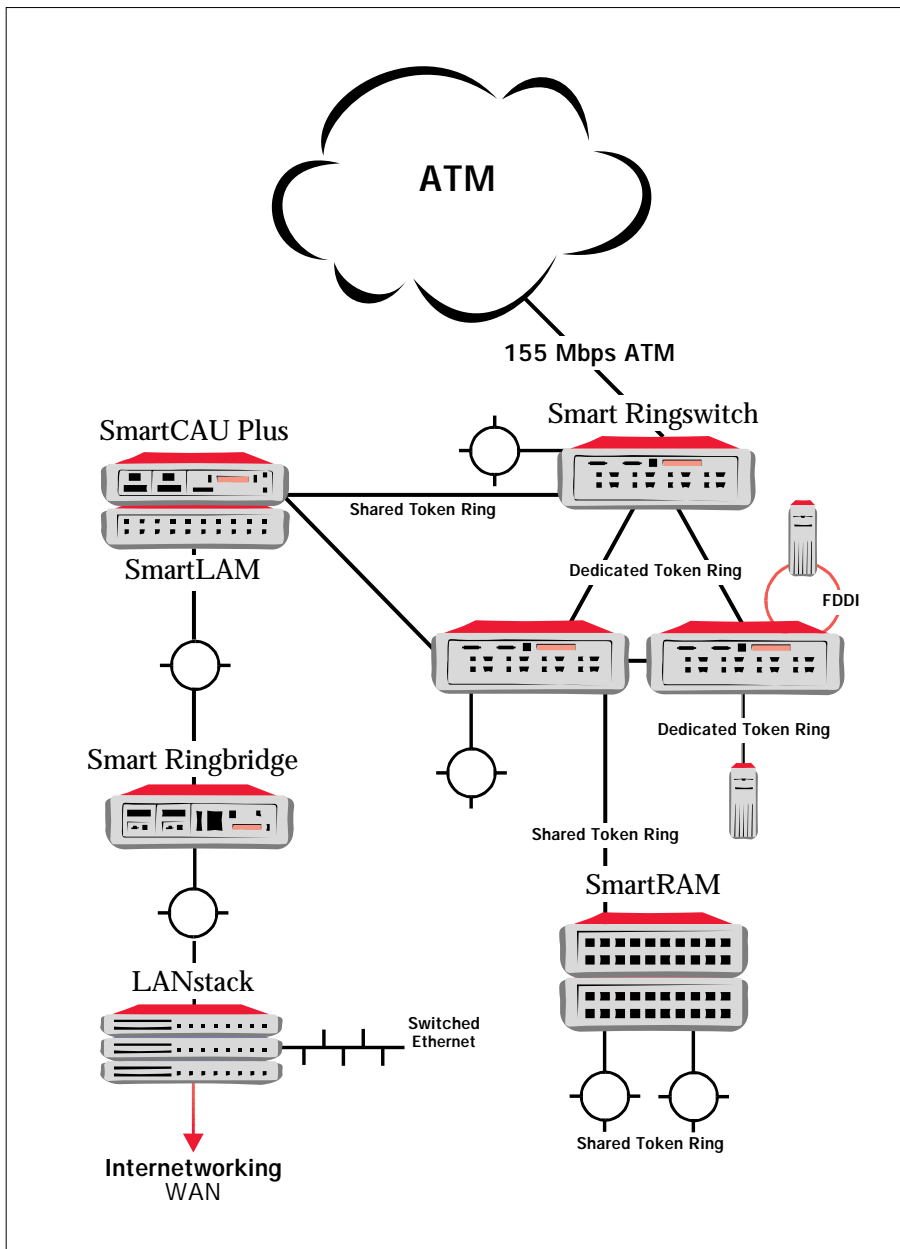


Stackable and Standalone Hubs and Switches

Madge's integrated, stackable networking systems deliver high-performance solutions that precisely meet the needs of today's business-critical networks. Our Madge Stack and LANstack product lines combine low cost of ownership with scalability to expand as business needs change.

Together, they comprise a wide range of stackable and/or standalone components, including Ethernet and Token Ring switches and intelligent hubs, ATM access devices, and a full complement of routers and plug-in management agents—so you get the functionality of a modular hub for the price of a stackable. Using Madge Stack™ and LANstack™, you can build an enterprise network that is as dynamic as your business.

Stackable and Standalone Hubs and Switches



Customer Benefits

Madge's advanced stackable architecture helps you maintain continuous and secure network services, while reducing operational and support costs and leveraging investment in installed LAN equipment to the fullest. Madge Stack and LANstack hubs significantly reduce network downtime and provide complete visibility and control of network services.

Product Line Features

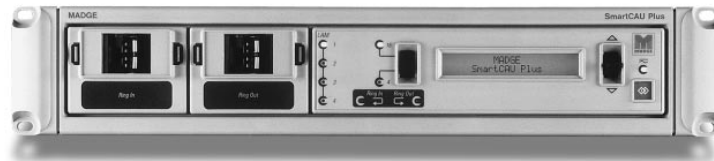
- Low cost of ownership
- Top performance
- Scalable to meet changing network requirements
- Incremental upgrade path protects network investment
- Wide range of shared and switched stackable solutions
- Full manageability

Madge Stack

An integrated family of stackable hubs and switches for Token Ring that offers high-performance, IBM compatibility and powerful network management.

SmartCAU Plus

Madge Stack



SmartCAU™ Plus, an intelligent stackable hub for Token Ring networks, is designed to meet the needs of today's mission-critical network environments. With its combination of optimized fault recovery mechanisms and advanced network management capabilities, SmartCAU Plus provides the network administrator with complete visibility and control over remote Token Ring LANs.

Customer Benefits

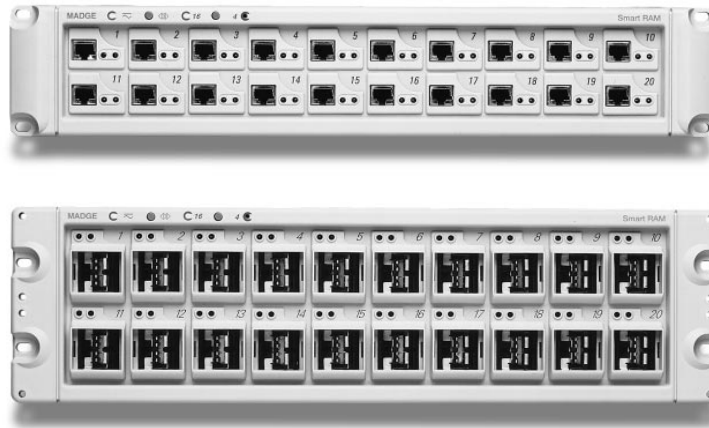
- Minimum network downtime
- Comprehensive management
- Scalable up to 80 ports

Product Features

- Three optimized automatic fault recovery mechanisms
- Supports Madge TrueView, HP OpenView, IBM NetView/AIX, SNMP and other management platforms
- Supports STP, UTP, and fiber Ring In/Ring Out connections.

SmartRAM

Madge Stack



SmartRAM™ is a highly cost-effective intelligent 20-port stackable hub solution for Token Ring workgroups. Combining optimized fault recovery mechanisms with comprehensive management capabilities, SmartRAM is able to maintain continuous network service and provide the network administrator with unrivaled management and control over Token Ring workgroups.

Customer Benefits

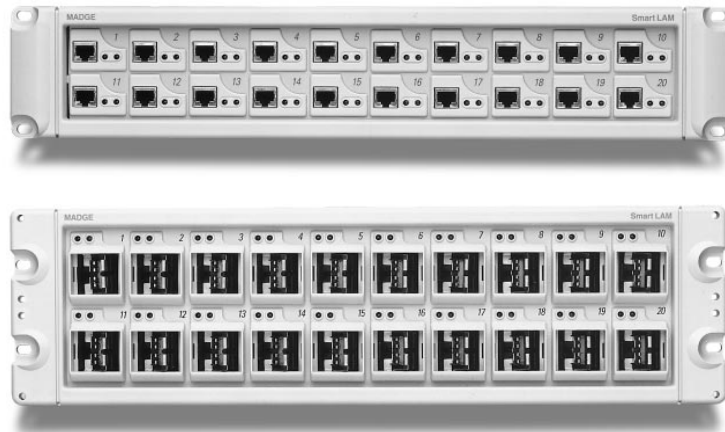
- Minimum network downtime
- Comprehensive management
- Scalable up to 60 ports

Product Features

- Standalone operation offers low-cost entry
- Optimized automatic fault recovery
- Supports Madge TrueView, HP OpenView, IBM NetView/AIX, SNMP and other management platforms

SmartLAM

Madge Stack



SmartLAM™ is an expansion module for the Madge SmartCAU Plus and SmartRAM intelligent stackable hubs. Providing 20 ports for the connection of Token Ring stations over STP or UTP lobe cable media, SmartLAM gives maximum flexibility and choice in the implementation and evolution of Token Ring networks.

Customer Benefits

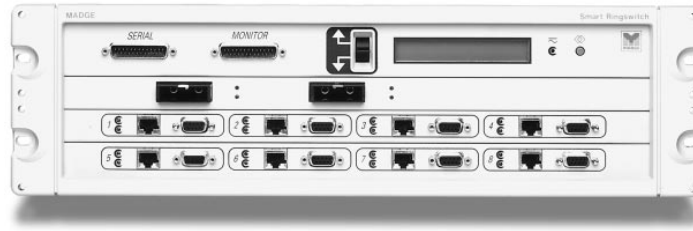
- Minimum network downtime
- Faster fault finding
- Ease of integration into your wiring installation

Product Features

- Protects the network from stations inserting at the wrong ring speed
- Comprehensive status indication
- Supports both STP and UTP connectors

Smart Ringswitch

Madge Stack



Smart Ringswitch™ is the highest performance, collapsed backbone cut-through Token Ring switch. The Smart Ringswitch is a powerful, more cost-effective alternative to collapsed backbone routers—significantly improving the performance of the network. It solves many of today's network performance problems, and is the perfect platform for implementing future applications.

Customer Benefits

- Maximum performance to relieve backbone congestion
- Supports a migration path to FDDI and ATM
- Fiber and copper ports provide cabling flexibility

Product Features

- Delivers Source Route Transparent cut-through switching
- Active Broadcast Control and RMON management
- Supports Madge TrueView, HP OpenView, IBM NetView/AIX, SNMP and other management platforms

Smart Ringbridge

Madge Stack



Smart Ringbridge™ is a source routing Token Ring bridge. Delivering exceptional performance, the Smart Ringbridge greatly improves network response times and increases network user productivity in multi-segment Token Ring networks. Its flexible, easy-to-install design, and powerful management capabilities make the Smart Ringbridge the ideal solution for local Token Ring connectivity.

Customer Benefits

- Maximum performance
- Ease of integration into your wiring installation
- Comprehensive management

Product Features

- Provides a high-speed connection between segments
- Offers support for both STP and UTP cabling with Madge Smart WireSense™ technology
- Supports Madge TrueView, HP OpenView, IBM NetView/AIX, SNMP and other management platforms

LANstack

Madge's LANstack family
of stackable Ethernet and Token
Ring hubs, switches, and routers
delivers versatile, pay-as-you-grow
connectivity for expanding
workgroups and branch offices.

SH-E8, SH-E16 and SH-E24 Stackable Ethernet Hubs

LANstack



LANstack stackable Ethernet hubs are a powerful, cost-effective answer to the unique networking needs of branch offices, departmental workgroups, and environments characterized by rapid growth and structural change. Eight, 16 or 24-port models offer flexible and scalable connectivity options. LANstack lets users mix Ethernet and Token Ring hubs in one stack and manage them with a single management agent.

Customer Benefits

- Cost-effective connectivity for small installations
- Easy integration with enterprise networks
- Full remote management capability

Product Features

- Up to five cascaded hubs per stack
- Multiple segments supported in one stack
- Expansion slots for agent and fiber-optic backbone connection

SH-E24S Stackable Ethernet Security Hub

LANstack



The LANstack SH-E24S Ethernet security hub protects the network against “sniffers” and unauthorized intruders using an effective, two-tiered security approach. Eavesdropping Protection on each port neutralizes network “sniffers” by directing each data packet to its designated station only. At the same time, Intrusion Control supervises network access and permits only authorized users to attach to the network.

Customer Benefits

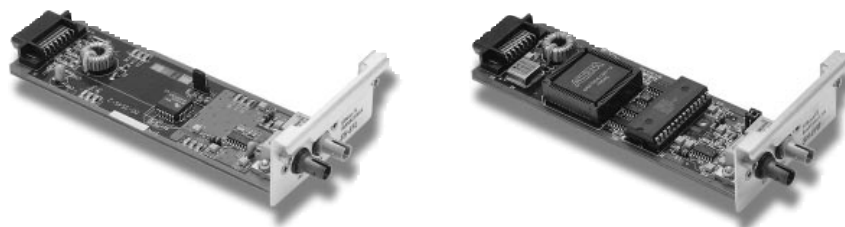
- Effective Ethernet security
- High port-density per hub
- Cost-effective 10BASE-T

Product Features

- UTP/STP cabling with RJ45 connectors
- Two-tiered, physical level security
- Fully manageable

SH-EFL and SH-EFB Fiber- Optic Backbone Card

LANstack



The Madge SH-EFL and SH-EFB expansion cards plug into LANstack Ethernet hubs to provide reliable backbone connections between hub stacks or between the stack and the enterprise network. The SH-EFL complies with the 10BASE-FL (FOIRL) standard for fiber-optic links. The SH-EFB backbone card is compliant with the 10BASE-FB standard for synchronous Ethernet.

Customer Benefits

- Long-distance, reliable backbones
- Easy expandability
- Standards-compliant

Product Features

- Field-installable
- Popular fiber-optic ST connectors
- Backbone links of up to four kilometers

SH-EFN and SH-TFN Feeder Nodes

LANstack



For fast and efficient internetworking between LANstack hubs and multiple LAN/WAN environments, Madge's SH-EFN (Ethernet) and SH-TFN (Token Ring) Feeder Nodes provide powerful routing solutions. Concurrent, high-performance bridging and routing support all major LAN and WAN protocols. Built-in fault-tolerance reduces network downtime and keeps LAN/WAN interconnections operating smoothly.

Customer Benefits

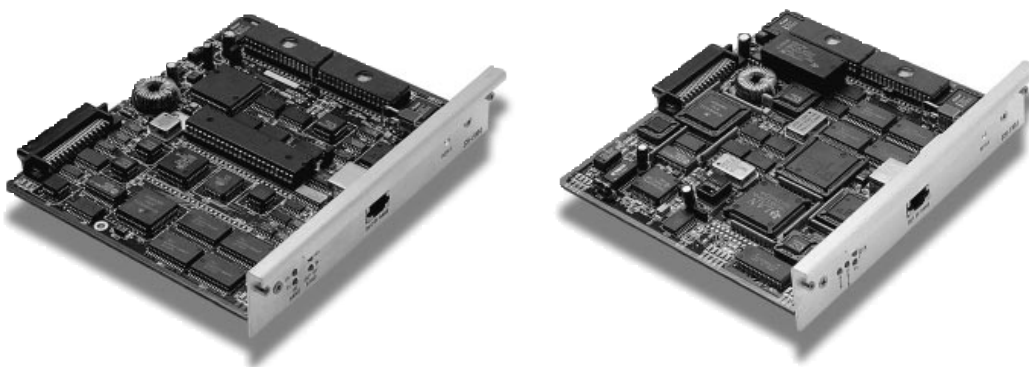
- Efficient LAN/WAN communications
- Fully integrated with the stack
- High-performance internetworking

Product Features

- High filtering and forwarding rates
- Upgradeable via software download
- Supports all popular routing, bridging, and WAN protocols

SH-EMA and SH-TMA Network Management Agents

LANstack



Madge's field-installable management agent modules enable easy desktop management of the LANstack network from a local or remote management station. The SH-EMA monitors Ethernet performance while the SH-TMA keeps tabs on Token Ring LANs. Both agents can execute configuration changes for any LANstack hub in the stack. The agent cards are SNMP compliant and work in conjunction with Madge's MultiMan Network Management System.

Customer Benefits

- One agent manages entire stack
- Real-time reporting of LAN activity
- Remote management from a single location

Product Features

- Field-installable
- One agent configures all hubs in the stack (all media)
- Easily upgradable via software download

SH-T16 Stackable Token Ring Hub

LANstack



The SH-T16 brings Token Ring connectivity to Madge's LANstack hub series. Each LANstack hub integrates all the functions that today's growing networks demand, in a single, self-contained unit. The SH-T16 is designed for easy expansion and can grow from standalone operation to a clustered multiple ring configuration. Branch offices and small workgroups can start with one 16-port hub and grow to 80 logically linked, centrally managed Token Ring ports.

Customer Benefits

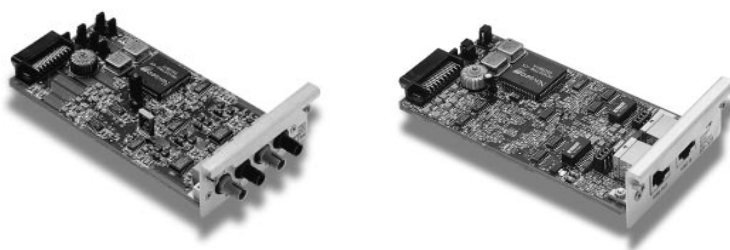
- Cost-effective Token Ring connectivity
- Easy integration with enterprise networks
- Reliable, fail-safe performance

Product Features

- Up to five cascaded hubs per stack
- Multiple rings supported in one stack
- Expansion slots for agent and Ring-in/Ring-out connections

SH-TFR and SH-TCR Ring-in/Ring-out Repeater Cards

LANstack



The Madge SH-TFL and SH-TCR expansion cards plug into LANstack Token Ring hubs to provide reliable Ring-in/Ring-out connections between hub stacks or between the stack and the enterprise network. Support for either copper or fiber-optic cabling gives network managers flexible options for linking LANstack rings with larger Token Ring structures. Optional speed screening and beacon avoidance functions are available on both cards.

Customer Benefits

- Easy plug-in expandability
- Reliable Ring-in/Ring-out connections
- Fault-tolerance

Product Features

- Field-installable
- TCP (Token Cable Protection) on Ring-in/Ring-out ports
- Full repeater functionality with optional backplane repeating

Visage Stackable Workgroup Switches

The Visage family of workgroup switches offers a combination of performance, manageability, and price that is unmatched in the industry.

Visage 24T

Visage Stackable Workgroup Switches



The Madge Visage 24T is part of a complete family of Visage high-performance workgroup switches. It delivers wire-speed segment switching on 24 10BASE-T ports. The Visage 24T functions as a standalone switch, or can be easily stacked with other Visage units in an integrated cluster of multigigabit bandwidth. Straightforward, low-cost connectivity and scalable port- density (up to 96 ports per cluster) provide a simple and cost-effective way to achieve dramatic increases in network performance.

Customer Benefits

- Excellent price/performance
- Grow your network without performance penalties
- Industry-leading SMON switch management

Product Features

- 4 Gbps of aggregate bandwidth per cluster
- Plug'n'Play stackability
- Full wire-speed switching on all ports

Visage 16200T and Visage 16200F

Visage Stackable Workgroup Switches



Both models of the Visage 16200 are equipped with 16 10BASE-T, segment switching ports and two high-speed 100 Mbps Fast Ethernet ports. Visage 16200T supports Fast Ethernet over Category 5 100BASE-TX, while the Visage 16200F utilizes 100BASE-FX fiber-optic links. These wire-speed data pipes are ideal for opening up server bottlenecks, or for providing high-speed uplinks to a central LANswitch backbone.

Customer Benefits

- Excellent price/performance
- Industry-leading SMON switch management
- Seamless integration with Madge LANswitch

Product Features

- 4 Gbps of aggregate bandwidth per cluster
- All ports operate in either half or full duplex mode
- High-performance and fault-tolerant VLSI architecture

Visage 800T

Visage Stackable Workgroup Switches



The Visage 800T offers eight ports of switched, high-speed, 100BASE-TX Fast Ethernet, making it an outstanding choice for meeting the bandwidth demands of server farms or individual power users. Auto-sensing ports (10 or 100 Mbps) give you added flexibility in configuring the workgroup LAN. The Visage 800T can be stacked with any of the Visage units into an integrated, multigigabit switch, which allows you to increase port-density and scale performance without compromise.

Customer Benefits

- Plug 'n' Play installation
- Dramatically increases network performance
- Big pipes for server farms and power users

Product Features

- All ports operate in either half or full duplex mode
- High-performance and fault-tolerant VLSI architecture
- High-end functionality

Visage Exoplane

Visage Stackable Workgroup Switches



The Visage Exoplane™ is a sophisticated interconnector that operates as a transparent extension of the switch's own internal backplane. As Visage units are stacked together, the Exoplane creates a single, integrated switch with a common, multigigabit, non-blocking backplane. Any combination of up to four Visage units can be integrated via the Exoplane, into a single, unified cluster.

Customer Benefits

- Scale workgroup size and performance without compromise
- Eliminates interconnection bottlenecks
- Plug'n'Play installation

Product Features

- Multigigabit, non-blocking switching fabric
- Delivers 4 Gbps of aggregate bandwidth per cluster
- Guarantees full wire-speed switching on all ports; all technologies

Visage NMA Network Management Agent

Visage Stackable Workgroup Switches



The Visage NMA Network Management Agent module enables the Visage cluster to be fully monitored and managed via SNMP-based MultiMan and SMON network management applications. The Visage NMA also provides a virtual cascading link between the Exoplane interconnectors in a Visage cluster. The agent performs complete, real-time configuration of the cluster, and provides accurate performance and diagnostic statistics for all switch activity.

Customer Benefits

- Manage all switched elements via MultiMan
- Get a complete SMON view of all switched traffic
- Part of an integrated, end-to-end network management system

Product Features

- SNMP-compliant plus full support for RMON MIB groups
- Enables point-and-click creation of Virtual LANs
- Manages the virtual Exoplane backplane

Visage SMON Add-on Package

Visage Stackable Workgroup Switches



The SMON Add-on Package enables Madge's industry-leading SMONMaster Switch Monitoring Application to be installed in the Visage cluster via easy software download. SMONMaster graphically monitors overall utilization of the switch and also gathers statistics at increasingly finer network levels, including Virtual LAN, session, port and host levels. One add-on package is required per cluster.

Customer Benefits

- Overall and in-depth Visage traffic analysis
- Fast and accurate troubleshooting
- Enables pro-active network management

Product Features

- Fully integrated with MultiMan Network Management System
- RMON reporting of real-time traffic patterns, and virtual LAN usage
- Runs on popular UNIX and Windows platforms

Standalone Ethernet Devices

Madge offers a complete family of rugged, standards-based transceivers, repeaters, and converters that provide simple yet reliable connections between MultiNet hubs and Ethernet network components.

Fiber-Optic Ethernet Transceivers

Standalone Ethernet Devices



The LE-25 and LE-26 series are the fiber-optic members of Madge's complete family of standalone Ethernet transceivers. They employ fiber-optic links to provide a flexible and reliable way of connecting Ethernet nodes to the network. All models perform standard transceiver functions including collision detection, jabber protection, loopback, and SQE test. Redundant links on the LE-26 and LE-26/FL give extra protection to vital Ethernet nodes. Full compliance with either the 10BASE-FL or 10BASE-FB standard.

Customer Benefits

- Rugged standalone units
- Standards-based
- Reliable fiber-optic connectivity

Product Features

- Popular ST connectors
- 100% collision detection and enforcement
- Compact size

10BASE-T Transceivers

Standalone Ethernet Devices



The LE-45T, LE-45Tm, and LE-46T are part of Madge's complete family of standalone Ethernet transceivers. They interface Ethernet AUI nodes to the 10BASE-T UTP network. All models perform standard transceiver functions, including collision detection, jabber protection, loopback, and SQE test. Redundant links on the LE-46T give extra protection to vital Ethernet nodes, while the miniature LE-45Tm makes Ethernet connectivity simple and easy.

Customer Benefits

- Rugged standalone units
- Standards-based connectivity
- Fault-tolerant

Product Features

- 10BASE-T Plus mode for easy trouble-shooting
- 100% collision detection and enforcement
- Compact size

Network Adapters

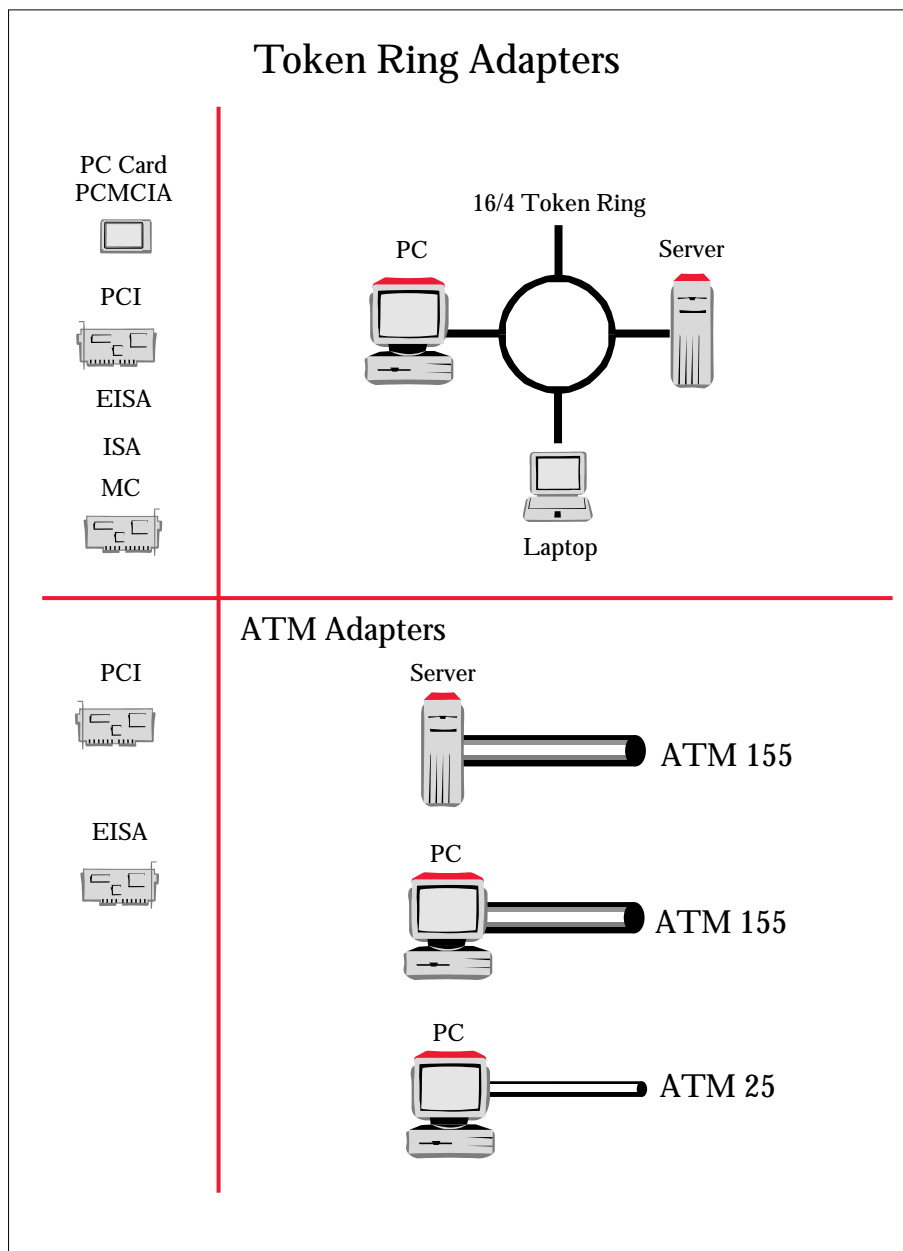


Network Adapters

Madge provides the industry's broadest range of intelligent network adapters for today's demanding enterprise-wide corporate networks. From 4 Mbps to 155 Mbps, from shared Token Ring to switched ATM, Madge extends the power of the network right to the desktop.

Compatible with all popular client and server operating systems and PC environments, Madge adapters are the ideal choice for companies seeking a single-source desktop solution. All Madge adapters are shipped with a complete suite of network drivers and installation utilities. Madge provides ongoing software upgrades for its installed base—ensuring continued support for both established 16-bit legacy applications as well as evolving 32-bit desktops.

Network Adapters



Customer Benefits

For client applications, Madge improves network access speeds and reduces the support overhead and complexity of managing its customers' increasing numbers of networked desktops. Easy-to-use menu-based software can create a standard set-up for any networked PC, irrespective of PC bus type. For servers, Madge optimizes performance and application response times for a broad range of PC server platforms.

Product Line Features

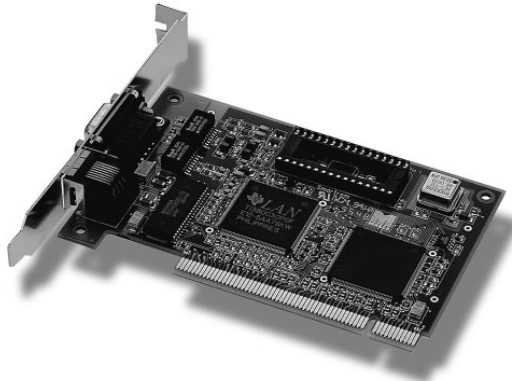
- Supports all popular desktop PC platforms
- Fully compliant with industry standards
- Interoperability with third party vendors
- Lifetime warranty
- Fully scalable solutions
- Dedicated Token Ring and multiprocessor support

Token Ring Adapters

Madge provides flexible, high-performance and easy-to-use Token Ring solutions for all client/server applications. Every adapter is covered by a lifetime warranty and the in-built investment protection of free lifetime software upgrades.

Smart 16/4 PCI Ringnode (Bus Master)

Token Ring Adapters



The Madge Smart 16/4 PCI Ringnode is a cost-effective, high-performance Token Ring adapter, designed for the latest generation of 32-bit PCs. It delivers new levels of installation simplicity and ease of use for power users. Unlike comparable cards, Madge's Smart PCI offers complete support of all popular combinations of operating system and PC platforms.

Customer Benefits

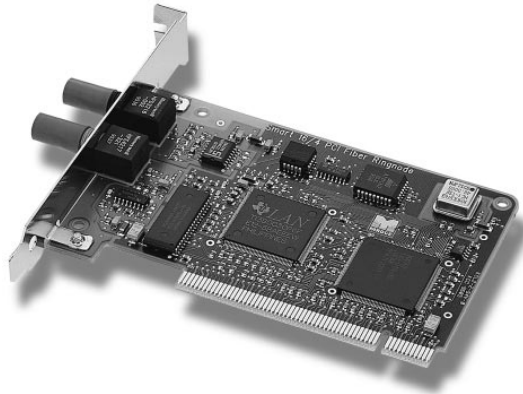
- Maximizes network access speed and productivity
- Simplifies PC set-up for complex multiprotocol configurations
- Provides a single network-wide adapter solution to reduce ongoing support costs

Product Features

- Low CPU utilization for servers
- Plug 'n' Play installation for client PCs
- Compatible with Intel, PowerPC, and MIPS PC platforms

Smart 16/4 Fiber PCI Ringnode

Token Ring Adapters



The Madge Smart 16/4 Fiber PCI Ringnode delivers the power of 32-bit network access for applications, where the benefits of fiber cabling to the desktop are required. A fiber infrastructure allows customers to deploy increased security, extended cable lengths and excellent noise immunity for their networks. Madge's Fiber PCI is the first 32-bit adapter to address these needs.

Customer Benefits

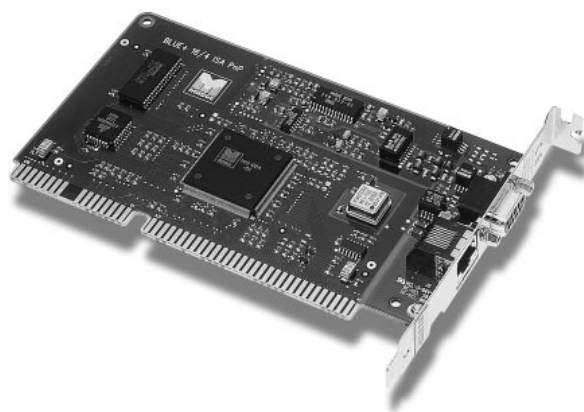
- PCs can connect to remote hubs (up to 2 km)
- Increased reliability over in-line transceivers
- The same fiber infrastructure will support ATM

Product Features

- Conforms to IEEE 802.5j standard for fiber-based Token Ring
- Based on the latest Madge PCI adapter technology
- ST connectors built into card

Blue+ 16/4 ISA PnP Adapter

Token Ring Adapters



The Madge Blue+™ 16/4 ISA PnP Adapter provides the unparalleled combination of faster overall network performance with guaranteed interoperability with legacy IBM environments. It is ideal for all ISA-based PCs that need to support both the latest operating systems and also access older host-based applications, which require full register-level IBM compatibility. Blue+ 16/4 ISA PnP has the flexibility to run either IBM's shared RAM Token Ring drivers or Madge's performance enhancing FastBlue™ software.

Customer Benefits

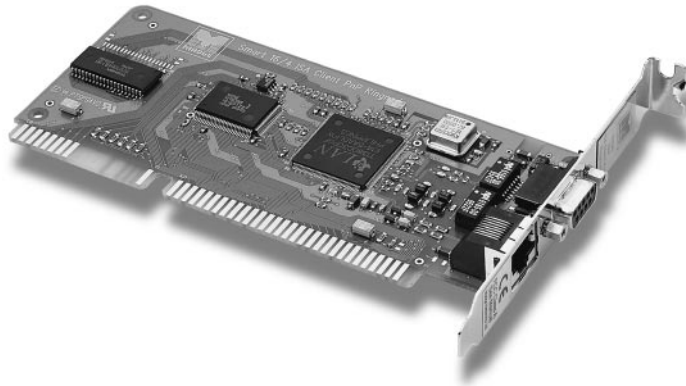
- Simplified support and installation
- Guaranteed 100% IBM compatibility
- Risk-free upgrade for IBM desktops

Product Features

- Ultimate performance for ISA PCs
- Runs IBM LSP 1.2+ or Madge FastBlue software
- Up to 21/2 times the throughput of equivalent IBM cards

Smart 16/4 ISA Client PnP Ringnode

Token Ring Adapters



The Madge Smart 16/4 ISA Client PnP Ringnode is designed for use in the new generation of ISA-based PCs, where the flexibility of Madge's memory-optimized Smart software is required. Fully software configurable, the adapter provides the easiest, quickest adapter installation available. When used alongside other Plug 'n' Play devices, such as PnP-enabled sound cards, it works cooperatively with the other parts of the Plug 'n' Play system to automatically allocate system resources.

Customer Benefits

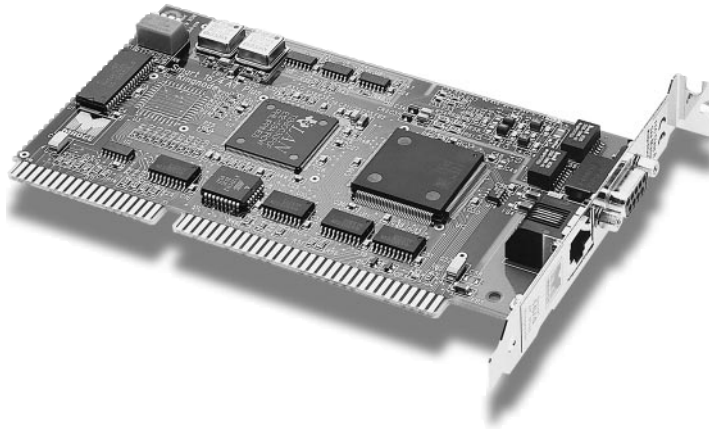
- Simple and fast Plug 'n' Play installation
- Low overhead support of DOS desktops
- Optimized for 486 and Pentium-based PCs

Product Features

- Certified for use with new 32-bit desktops
- Full support of Madge Smart software
- Excellent flexibility and performance

Smart 16/4 AT Plus Ringnode

Token Ring Adapters



The Smart 16/4 AT Plus Ringnode™ is the world's most versatile, high-performance ISA adapter. The AT Plus delivers proven performance for both older generation 8/16-bit PCs and the latest 32-bit desktops. This unique flexibility, coupled with extensive DOS memory management capabilities, makes this adapter universally suited to client, gateway, and workgroup server applications.

Customer Benefits

- Maximum investment protection for ISA PCs
- Single adapter for all ISA applications
- Simplified support and ease of use with standard Madge LAN Support Software (LSS).

Product Features

- Bus master DMA or programmed I/O data transfers
- On-board processing for up to seven protocols
- Integral FLASH ROM for advanced security and remote booting applications

Smart 16/4 PCMCIA Ringnode

Token Ring Adapters



The Madge Smart 16/4 PCMCIA Ringnode is a compact and efficient credit card sized adapter for PCs equipped with PC Card slots. With full support of the latest Plug 'n' Play operating systems, it provides a quick and convenient way to connect notebook and laptop computers to the corporate LAN. It's also ideal for complex DOS-based configurations, which can benefit from Madge's highly flexible range of network drivers and management utilities.

Customer Benefits

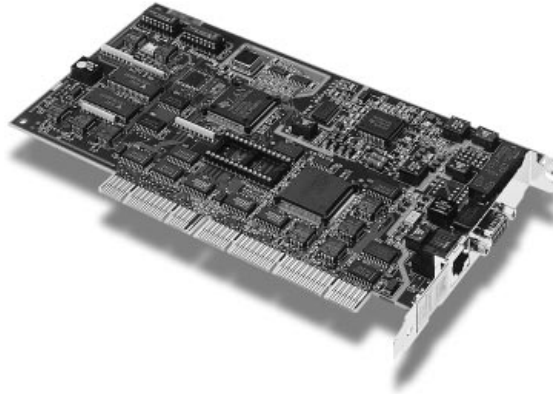
- Flexible solution for mobile/notebook users
- Coexists with other installed cards (e.g. modems)
- Simplified support and ease of use with standard Madge LAN Support Software (LSS)

Product Features

- Type II PCMCIA/PC Card v2.1 compliant
- Full Plug 'n' Play and hot swapping support
- On-board processing for up to 7 protocols

Smart 16/4 EISA Ringnode

Token Ring Adapters



The Smart 16/4 EISA Ringnode provides the ultimate in performance and efficiency for mission-critical applications for EISA-based PCs. The adapter continues to be independently acclaimed as the industry's performance yardstick for intensive file and network server applications. Support for full 32-bit burst mode data transfers enable it to deliver sustained 16 Mbps 'wire speed' with low CPU utilization, even when multiple adapters are installed in the same PC.

Customer Benefits

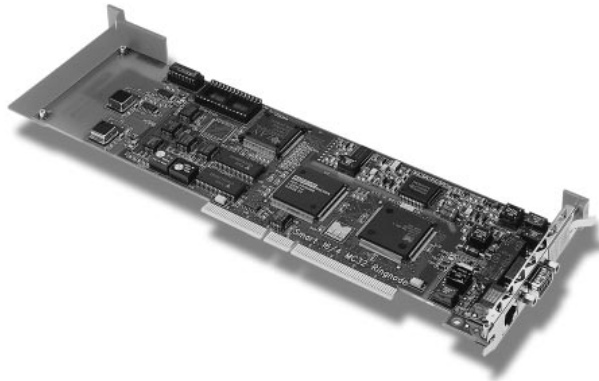
- Scalable for multiring server connectivity
- Fault-tolerance
- Broad PC platform support

Product Features

- Burst mode transfers up to 33 Mbps
- Adapter mirroring and multiprocessor support
- Supports all popular NOS and UNIX systems

Smart 16/4 MC32 Ringnode

Token Ring Adapters



The Madge Smart 16/4 MC32 Ringnode is a true 32-bit Micro Channel adapter for high-end MC-based PCs and RS/6000 platforms. It remains the most efficient adapter in its class, providing optimal client server network access with minimal CPU utilization. It is ideal for enterprise server and gateway applications, where maximized throughput is essential. It also provides excellent scalability, allowing up to six adapters to operate at 'wire speed' in a single server.

Customer Benefits

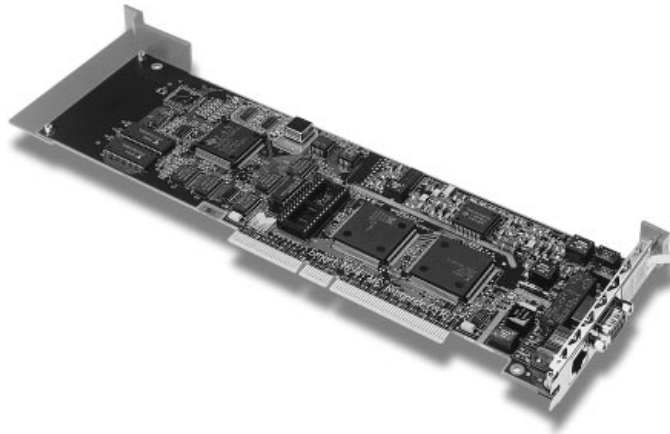
- Scalable for multiring server connectivity
- Fault-tolerance
- Broad PC platform support

Product Features

- Streaming data transfers up to 40 Mbps
- Adapter mirroring and multiprocessor support
- Supports all popular NOS and UNIX systems

Smart 16/4 MC Ringnode

Token Ring Adapters



The Madge Smart 16/4 MC Ringnode is a general purpose adapter for client, gateway, and workgroup server applications for Micro Channel architecture PCs. It supports full 32-bit addressing for effective access to PC memory above 16 MB. It also offers a broad range of configuration options, providing flexible support of both legacy 16-bit environments and newer 32-bit desktops that use the Micro Channel bus.

Customer Benefits

- Maximum investment protection for MC PCs
- Single adapter for ALL MC applications
- Simplified support and ease of use with standard Madge LAN Support Software

Product Features

- Full 32-bit addressing
- Bus master DMA or programmed I/O data transfers
- On-board processing for up to 5 protocols

Networking Software

Token Ring Adapters



Every Madge adapter ships with a comprehensive and powerful suite of network drivers and utilities. Smart 16/4 Ringnodes include Madge's LAN Support Software, which includes Fastmac Plus™ performance-optimized drivers and Madge's unique adapter-resident Smart drivers. Blue+ 16/4 ISA PnP ships with FastBluesoftware, which offers significantly higher throughput than IBM's LAN Support Program.

Customer Benefits

- Optimized PC performance for specific client/server environments
- More desktop memory available for PC applications
- Improved manageability and system resilience

Product Features

- Full support of all popular desktop OS and NOS
- Special client drivers to conserve PC DOS conventional memory
- Classic and dedicated Token Ring support

Easy Installation and Management Utilities

Token Ring Adapters



With every Token Ring adapter, Madge provides a complete suite of support utilities that help to minimize the time and resource required to implement moves, adds, and changes to adapter configurations. In this way, network administrators can easily modify hardware and driver settings, as well as define standard installation scripts that can be applied network-wide.

Customer Benefits

- The easy way to get the most from network adapters
- Simplified support of networked PCs
- Remote management of desktop resources

Product Features

- Easy-to-use graphical installation and configuration utilities
- On-line documentation
- DMI and SNMP desktop agents

UNIX Support Software

Token Ring Adapters



In addition to the standard network drivers shipped with Madge adapters, special drivers are also available for today's most popular UNIX implementations. Drivers for AIX, SCO, Solaris, HP-UX, and UnixWare are complemented by a selection of interfaces for DOS/Windows clients, requiring TCP/IP support. This includes support for the broad range of LAN Workplace for DOS and Winsock-compliant applications.

Customer Benefits

- Flexible support for Internet applications
- Broad platform support
- Free on-line software

Product Features

- 32-bit support for AIX on RS/6000
- Sun Solaris 2.x
- SCO Open Desktop/Server

Smartrom

Token Ring Adapters



Smartrom™ is a special option for adapters in the Smart 16/4 Ringnode family which are titled with the appropriate socket. Based on Flash ROM technology. It enables network administrators to improve security and simplify the configuration management of networked PCs by taking advantage of popular remote booting schemes and boot-time set-up options. Smartrom can guard against system viruses, with full password protection, by controlling disk access at boot time.

Customer Benefits

- Standardize common boot configuration
- Boot-time disk protection
- Improves network access security

Product Features

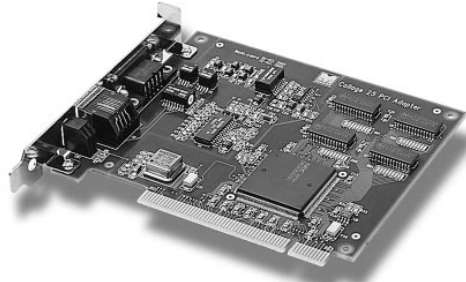
- Support of RPL and remote reset
- Permits local administered addresses
- Enables password protection

ATM Adapters

Madge's versatile Collage Workgroup ATM family includes high-performance 25 Mbps and 155 Mbps ATM adapters for both client and server environments. The Collage ATM adapters deliver the ultimate in performance at an affordable price.

Collage 25 Adapter

ATM Adapters



The Collage 25 Client Adapter brings the full benefits of 25.6 Mbps ATM to the desktop at a breakthrough price. The adapter features an in-house designed, high-performance ASIC for Segmentation and Reassembly (SAR) and supports both category 3 UTP as well as STP cabling. An easy-to-use management facility and local control and configuration capabilities ensure efficient, trouble-free operation.

Customer Benefits

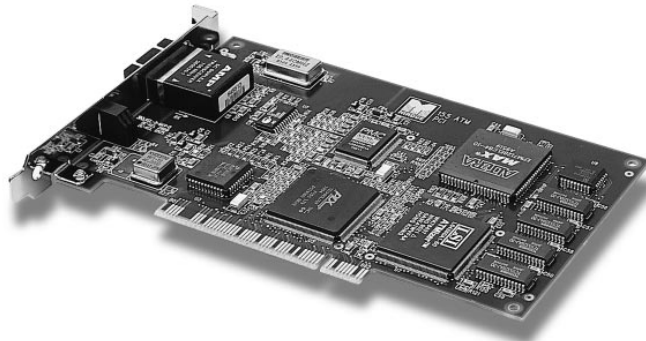
- Affordable ATM at the desktop
- Investment protection with Madge LAN Emulation
- Fully ATM standards compliant

Product Features

- Major software content
- Custom designed ASIC
- Supports category 3 cabling

Collage 155 Adapter

ATM Adapters



Collage 155 Client and Server Adapters deliver the ultimate in performance at 155 Mbps for data-intensive server and cost effective client applications. The adapters use a high-performance architecture and high-speed processor-based silicon technology for Segmentation and Reassembly (SAR). They offer a range of bus types with multimode fiber or copper interfaces for flexible network integration. The easy-to-use management facility and local control and configuration capabilities ensure efficient, trouble-free operation.

Customer Benefits

- Unsurpassed 155 Mbps ATM performance for the client and server
- Investment protection with Madge LAN Emulation
- Fully ATM standards compliant

Product Features

- PCI Server, EISA Server, and PCI Client adapters
- High-performance architecture
- Multimode fiber or copper interfaces

Network Management



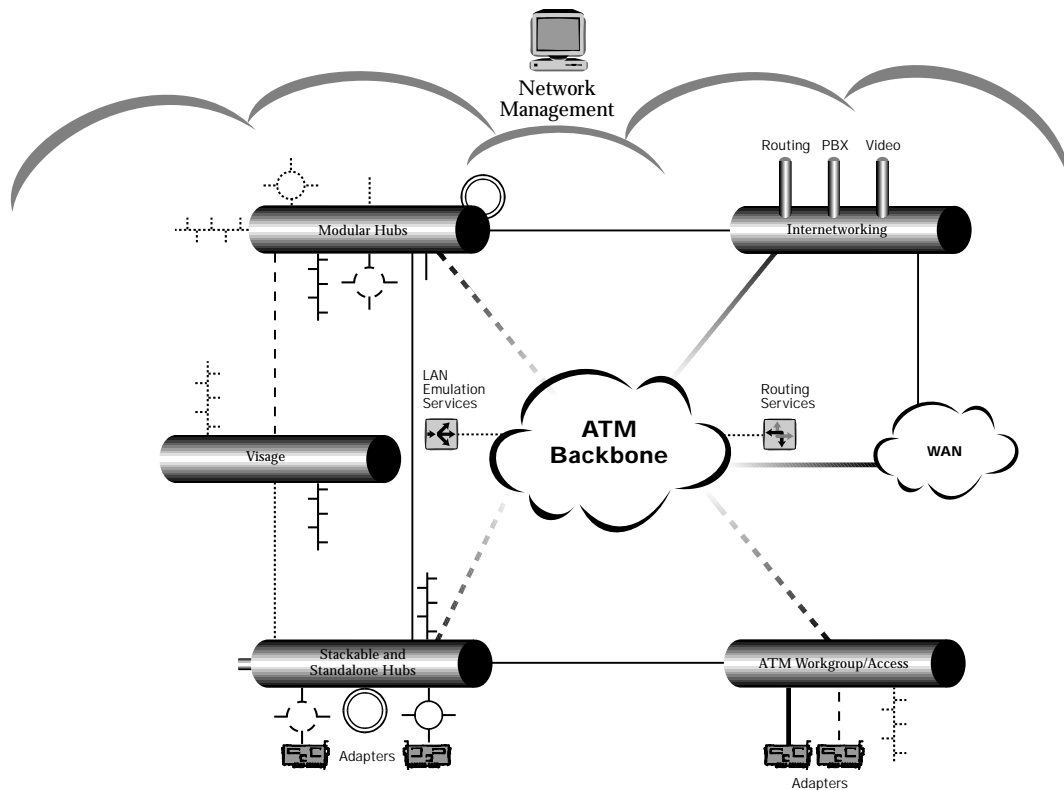
Network Management

Madge Networks' comprehensive network management solutions help you maintain good network performance by giving you the tools to centrally control network resources, quickly locate and resolve network fault conditions, and proactively plan future network design across the whole enterprise.

Madge's TrueView family of easy-to-use management software provides comprehensive information for managing Token Ring installations, while our MultiMan network management system delivers a suite of advanced LAN management applications for end-to-end management of switched enterprise networks. Both products feature an intuitive, easy-to-use graphic interface that can be installed on any of the leading management platforms, including HP OpenView, IBM NetView for AIX, and HP OpenView for Windows.

Network Management

Madge Networks End-to-End Product Solutions



Customer Benefits

Madge Network Management applications give you complete control of the entire network (shared and switched) from a single management console. Madge's effective management software tools help you keep the network running smoothly, so you can spend less time putting out fires and more time optimizing and enhancing network performance.

Product Line Features

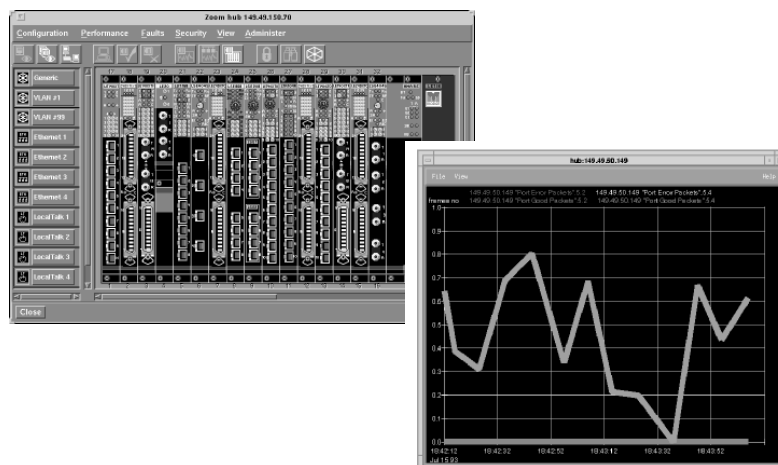
- Tight integration with all popular management platforms
- Easy-to-use graphical interface
- SMON switched network management
- Real-time monitoring and reporting
- Advanced fault isolation and resolution
- Full remote configuration and control of network devices

Network Management Agents

Madge Network Management Agents work in conjunction with the MultiMan™ Network Management Applications to put comprehensive network control and analysis at your fingertips.

MultiMan Network Management System

Network Management



Madge's MultiMan Network Management System comprises a suite of applications that puts comprehensive network analysis and control at the network manager's fingertips. MultiMan's detailed, customizable views of the network make it easy to monitor, troubleshoot, and control your entire installation from a single desktop. MultiMan is fully integrated with a variety of popular management platforms including, HP OpenView for SUN and HP9000, HP OpenView for Windows, and IBM NetView for AIX.

Customer Benefits

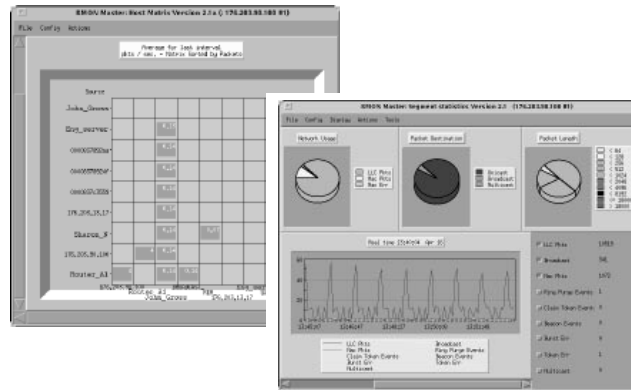
- End-to-end network management
- Easy-to-use
- Complete selection of add-on applications

Product Features

- Intuitive graphic interface
- Tight integration with open management platforms
- Extensive on-line help

RMONMaster

Network Management



RMONMaster and DecodeMaster™ tie the advanced monitoring functions of the RMON MIB to Madge's MultiMan Network Management System. These applications have the built-in expertise to select, analyze, and display the RMON MIB information that is most important for understanding Ethernet network behavior. They summarize the most relevant statistics in easy-to-read bar graphs, pie charts, and color coded matrices. DecodeMaster also provides per-packet screening and analysis for in-depth study of network traffic.

Customer Benefits

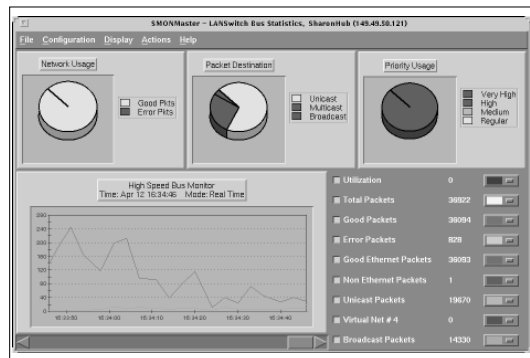
- Overall and in-depth network analysis
- Fully compliant with RMON standard
- Enables proactive network management

Product Features

- Baselining with automatic alarms
- Customized filter and capture criteria
- Reports real-time traffic patterns, virtual LAN usage, and more

SMONMaster

Network Management



The SMONMaster LANswitch Monitoring Application gives network managers the same kind of comprehensive network activity statistic on switched LAN traffic that they are used to getting with shared LANs. SMONMaster provides a comprehensive top-down view of all traffic traversing the Cellenium Bus. SMONMaster's unique, multitiered approach graphically monitors overall utilization of the switch, and also gathers statistics at increasingly finer network levels.

Customer Benefits

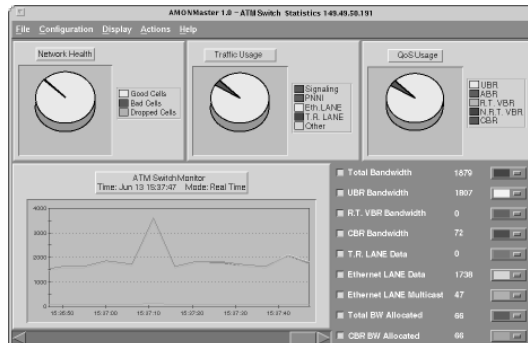
- Overall and in-depth LANswitch analysis
- Fast and accurate troubleshooting
- Enables proactive network management

Product Features

- Fully integrated with MultiMan
- Passive monitoring is transparent to the switch
- Reports real-time traffic patterns, virtual LAN usage and more

AMONMaster

Network Management



The AMONMaster™ ATM multiservice network monitoring and management application gives network managers the same kind of comprehensive statistics on ATM network traffic that they are used to getting with shared LANs. AMONMaster provides a comprehensive top-down view of all traffic traversing the ATM network. The unique, multitiered approach of AMONMaster graphically monitors overall utilization of ATM switches in the network.

Customer Benefits

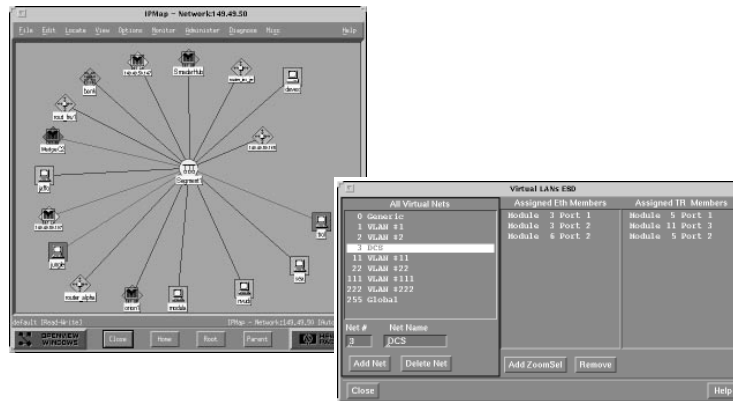
- Enables end-to-end monitoring of the network
- Full visibility to switched ATM traffic
- Helps network managers configure and optimize the network for gradual integration of multiservices

Product Features

- Overall and in-depth analysis of the ATM network
- Fast and accurate troubleshooting
- Easy-to-use graphical interface

VirtualMaster

Network Management



VirtualMaster™ makes it easy to set up secure virtual workgroups of LANswitch users, irrespective of their physical location. Real-time VLAN configuration allows network managers to quickly adapt the network to fit changing work-flows. Adds, moves, and changes to any Virtual LAN require no more than a few simple point-and-click operations from a central management console.

Customer Benefits

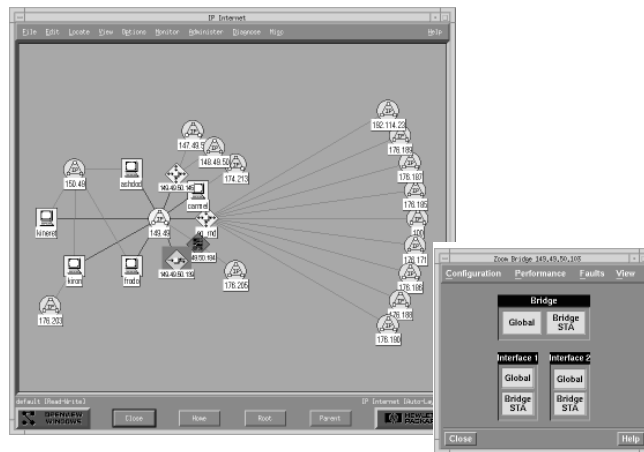
- Virtual LAN security and flexibility
- Optimizes switched network performance
- Easy to use

Product Features

- Fully integrated with MultiMan
- SNMP-compatible
- Intuitive graphical interface

InterMaster

Network Management



Easy and comprehensive management of Madge Ethernet and Token Ring bridges (IELB and ITLB) is provided by Madge's InterMaster™ application. InterMaster improves network reliability through rapid and effective troubleshooting of network bridges. It also enhances network efficiency by giving network managers full control of bridged traffic flows. InterMaster is a fully integrated with the MultiMan Network Management System.

Customer Benefits

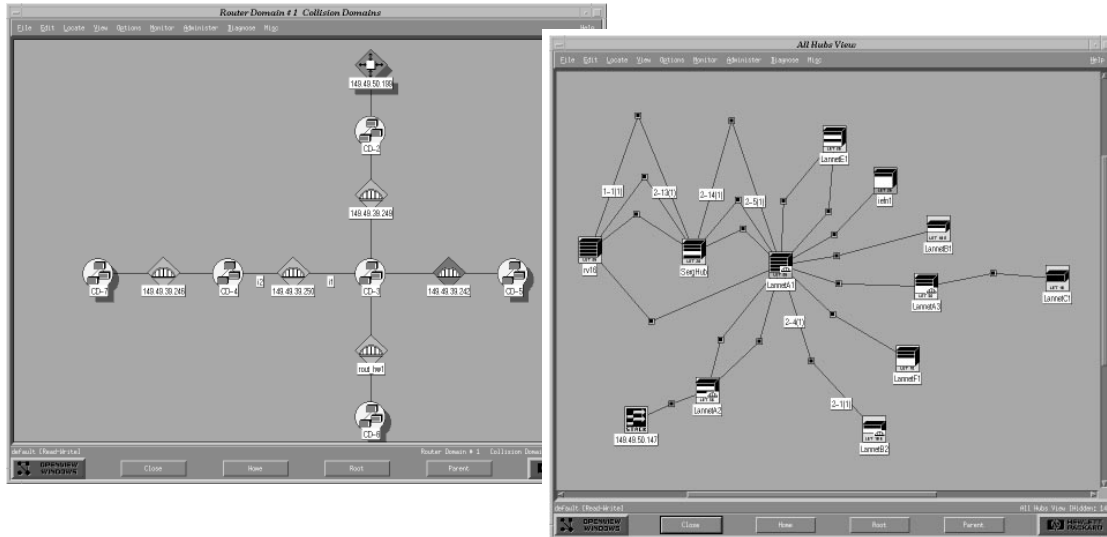
- Enhanced network management
- Easy-to-use
- Helps optimize network performance

Product Features

- Full control of bridged traffic flow
- Customized filtering
- At-a-glance performance graphs

TerrainMaster

Network Management



TerrainMaster™ helps you quickly find and resolve network connectivity problems by graphically displaying the physical connections between network resources. TerrainMaster automatically learns and displays how all devices in the network are interconnected so you can troubleshoot the network from a physical perspective and optimize data paths by reconfiguring inefficient network connections. This powerful diagnostic tool is fully integrated with the MultiMan Network Management System.

Customer Benefits

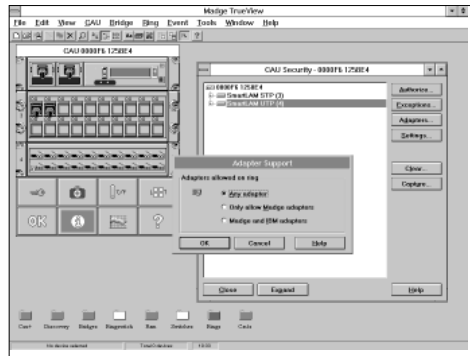
- Multilevel network views
- Effective network troubleshooting
- Proactive network management

Product Features

- Displays by hub, bridge, and router domains
- Collision domains and LAN path maps
- Real-time, overall physical network view

TrueView Ring Manager - Windows Version

Network Management



T rueView Ring Manager™ is a comprehensive ring monitoring solution that uses Advanced Agent microcode in Madge SmartCAUs and RAMs to collect and graphically represent a wealth of invaluable MAC and RMON level statistics. Ring Manager for Windows is ideal for smaller workgroup or campus rings and runs standalone or as part of an HP OpenView/Win solution.

Customer Benefits

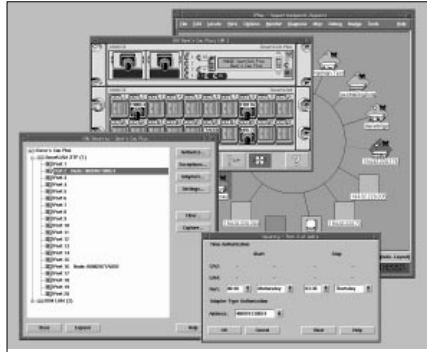
- MAC level topology mapping allows visualization of all ring nodes
- Rapid fault diagnosis and powerful ring performance monitoring
- Cost-effective implementation—no hardware RMON probe required

Product Features

- Support for advanced ring security and fault management features
- Extensive use of hypertext help and real-time graphing
- Ideal for smaller workgroup or campus rings

TrueView Ring Manager - UNIX Version

Network Management



T rueView Ring Manager is a comprehensive ring monitoring solution that uses Advanced Agent microcode in Madge SmartCAUs and RAMs to collect and graphically represent a wealth of invaluable MAC and RMON level statistics. Ring Manager for UNIX can be seamlessly integrated into enterprise management platforms —HP OpenView/HP-UX and Sun Solaris, and IBM NetView/AIX.

Customer Benefits

- MAC level topology mapping allows easy visualization of all ring nodes
- Rapid fault diagnosis and powerful ring performance monitoring
- Economic implementation—no hardware RMON probe required

Product Features

- Support for advanced ring security and fault management
- Extensive use of hypertext help and real-time graphing
- Seamless integration with open enterprise management platforms



WAN Access and Switching Solutions

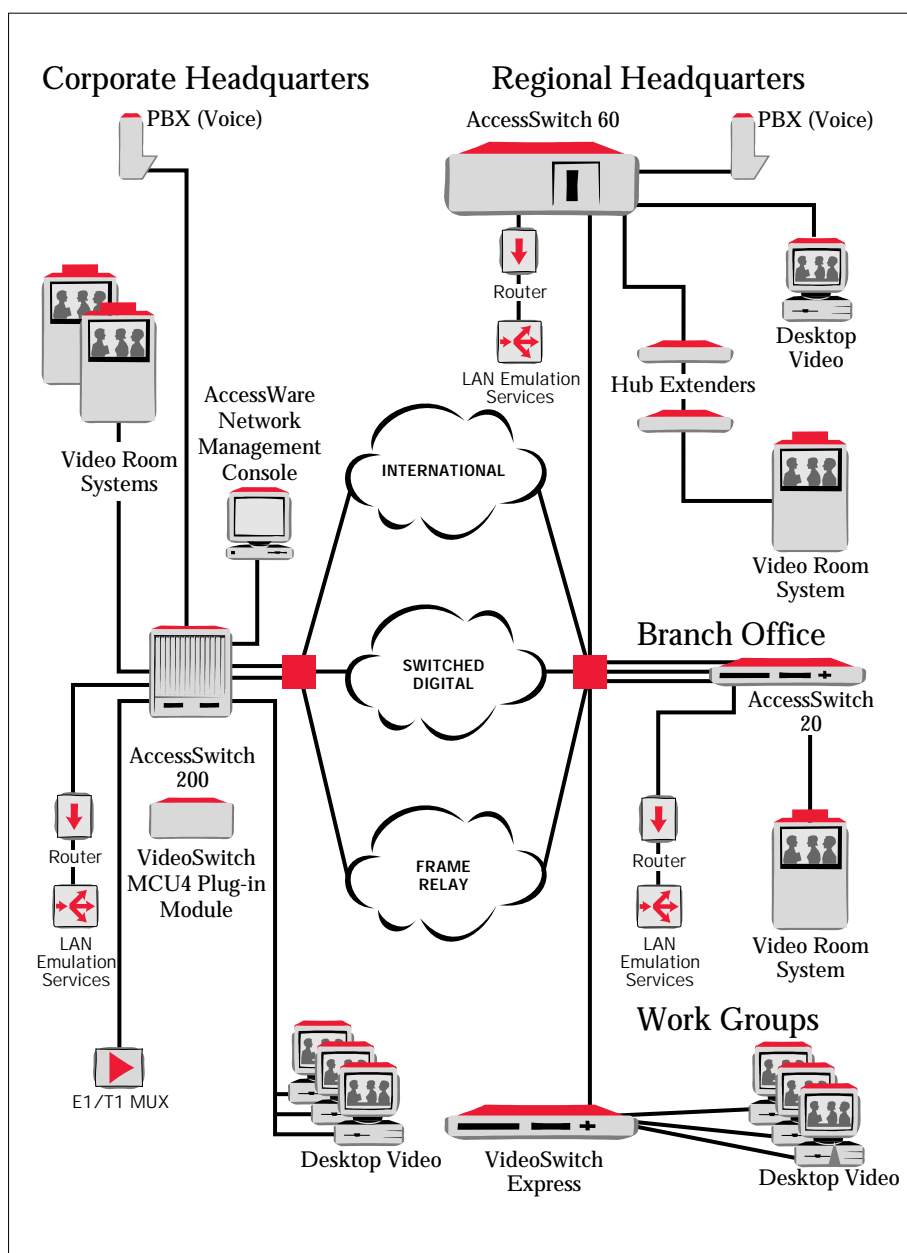
WAN Access and Switching Solutions

Madge WAN
AccessSwitch™ products
provide global bandwidth-
on-demand, network access
solutions for integrated
video, data, and voice
communications.

All AccessSwitch products integrate network traffic on a dynamic basis for multiple applications, incorporating multiple and diverse network devices, and manages connectivity to public or private, switched or dedicated network services on a global basis.

Complemented by an unprecedented suite of 40+ signaling protocols, the Madge WAN AccessSwitch products provide total flexibility while alleviating all concerns about interoperability.

WAN Access and Switching Solutions



Customer Benefits

The Madge WAN AccessSwitch products reduce overall network access costs and increase the capacity of your current network by dynamically combining network traffic and delivering variable bandwidth on demand on a pay-as-you-go basis worldwide. All products are easy to install and use, yet powerful enough to support the largest, most complex networks. Using AccessSwitch products customers can also create private ISDN networks.

Product Line Features

- Standardized Inverse Multiplexing
- Create private ISDN networks
- Dedicated and Switched Network Access
- 40+ Signaling Protocols
- Integrated Network Management
- Remote Diagnostics

AccessSwitch 20

WAN Access and Switching Solutions



The Madge AccessSwitch 20 provides cost-effective, integrated wide area network access for video, data, and voice communications. It is designed to provide reliable, flexible, integrated access switching capabilities for branch office sites or individual floors of large buildings where lower volume network access is sufficient. The AccessSwitch 20 can be configured for T1, Primary Rate ISDN (PRI), and Basic Rate ISDN (BRI) service.

Customer Benefits

- Cost-effective switched local and wide area network access
- Supports private, national, and international dialing plans
- Simple front panel operation and management

Product Features

- Up to 3 T1/Primary Rate ISDN (PRI) connections
- Up to 16 Basic Rate ISDN (BRI) connections
- Up to 4 Synchronous interface ports for V.35, RS449, or X.21 connections

AccessSwitch 60 Slotted Hub

WAN Access and Switching Solutions



The Madge AccessSwitch 60 provides cost-effective, high-capacity, integrated wide area network access for video, data, and voice communications. It is designed to provide reliable, integrated access switching capabilities for medium sized corporate sites, regional, and international locations. Plug-in communication modules provide maximum flexibility and investment protection.

Customer Benefits

- Dynamic access switching eliminates the need for separate, dedicated access lines
- Lower network access costs
- International dial plan and protocol support

Product Features

- Up to 24 T1/E1/Primary Rate ISDN (PRI)
- Up to 20 Synchronous interface ports for V.35, RS449, or X.21 connections
- Up to 20 inverse multiplex ports

AccessSwitch 200 Slotted Hub

WAN Access and Switching Solutions



The Madge AccessSwitch 200 provides high-capacity, high-performance wide area network access and switching for multiservice networks supporting video, data, and voice applications. It is designed to provide reliable, flexible, scalable, integrated access switching capabilities to large corporate sites, and regional and international locations. Plug-in communication modules protect your investment through easy upgrade.

Customer Benefits

- Multilevel redundancy for mission-critical applications
- Hot swappable interface cards allow customized configuration of ports
- Supports the largest, most complex, multinational networks

Product Features

- Up to 80 T1/E1/Primary Rate ISDN (PRI) connections
- Up to 72 Synchronous interface ports for V.35, RS449, or X.21 connections
- Up to 72 inverse multiplex ports

Digital Network Interface Modules

WAN Access and Switching Solutions

The Madge Quad, Dual, and Single high-speed digital network interface units, QDIU, DDIU, QEIU, DEIU, and SEIU, are individual modules that can be inserted into either the Madge AccessSwitch 60 (six slot) or AccessSwitch 200 (20 slot) chassis. Each input/output port can be configured as either a T1(QDIU/DDIU) or E1(QEIU/DEIU/SEIU), or Primary Rate ISDN (PRI) port.

Customer Benefits

- Cost-effective switched local and wide area network access
- Supports private, national, and international dialing plans
- Supports access to, and operation between, different network services

Product Features

- Up to 4 T1 or Primary Rate ISDN (PRI) connections using QDIU/DDIU
- Up to 4 E1 or Primary Rate ISDN (PRI) connections using QEIU/DEIU/SEIU
- Built-in support for all major national and international network protocols

Synchronous Data Interface Modules

WAN Access and Switching Solutions

The Madge QRVX and DRVX synchronous data interfaces are plug-in modules that can be inserted in either the Madge AccessSwitch 60 (six slot) or AccessSwitch 200 (20 slot) chassis. The QRVX module provides four synchronous interface ports and the DRVX module provides two. Each module can be configured as a group of RS449 or V.35 interfaces, with RS366, RS366A, V.25 bis or X.21 dialing for videoconferencing.

Customer Benefits

- Easy connection of industry standard RS449 or V.35 devices
- Optional inverse multiplexing allows use of multiple B channels
- Local, national, and international dialing plan capability

Product Features

- 4 T1 RS449 or V.35 synchronous connections
- Built-in RS366/RS366A interface ports for V.25bis or X.21 dialing
- Supports standard data rates from 56 Kbps to 1,539 Kbps

Basic Rate ISDN Interface Modules

WAN Access and Switching Solutions

The Madge OBIU and OBIU-U are individual plug-in modules that can be inserted in either the Madge AccessSwitch 60 (six slot) or AccessSwitch 200 (20 slot) chassis. Each OBIU module supports eight individual Basic Rate ISDN (BRI) interface connections. Each BRI interface supports two 64 Kbps B channels and one 16 Kbps D channel for an aggregate data rate of 128 Kbps full duplex connection.

Customer Benefits

- Simple connection of industry standard ISDN BRI devices
- Cost-effective BRI access and campus distribution
- High port density per module for economical large scale installations

Product Features

- Eight BRI ports per module
- Four wire twisted pair connections up to 3,000 feet using OBIU
- Two wire twisted pair connections up to 18,000 feet using OBIU-U

AccessWare System Software

WAN Access and Switching Solutions

Madge AccessWare™, the AccessSwitch's powerful operating system and network management software, enables the AccessSwitch's unique architecture to deliver reliable, and scalable solutions for wide area networks while setting a new standard in price performance for enterprise-wide networking and corporate communications centers. AccessWare permits the AccessSwitch to mix-and-match interfaces, integrate multipoint videoconference control (MCU), and provide full port and network switching for all connections.

Customer Benefits

- Maximum network flexibility and scalability
- Supports private, national, and international dial plans
- Simple system configuration and provisioning

Product Features

- Local or remote network management console capability
- Extensive dial plan and call handling capability
- Supports all major national and international network protocols

Video Networking



Video Networking Solutions

An industry first, the Madge VideoSwitch™ product family provides multipoint videoconferencing with integrated network switching capabilities for complete global video networking solutions.

Madge VideoSwitch solutions are available in a choice of simple, standalone, preconfigured units, or, as modular plug-in cards for the Madge AccessSwitch 60 and AccessSwitch 200 slotted hubs for larger, more flexible, more scalable installations.

All VideoSwitch products integrate multipoint videoconferencing capability with wide area network access switching, eliminating the need and additional cost of a separate, standalone MCU. Network switching capabilities are available on both network side and port side and include Primary Rate ISDN (PRI) and Basic Rate ISDN (BRI), T1, E1, V.35, RS449, RS366, X.21 dialing, and inverse multiplexing.

Customer Benefits

By combining network access switching and inverse multiplexing with multipoint control unit (MCU) functionality, the Madge VideoSwitch product family easily meets the network challenges of multipoint videoconferencing. These challenges include transparently switching between different network connections, efficiently using private and public networks, and seamlessly interoperating between multiple service providers and a multiplicity of videoconferencing equipment types.

Product Line Features

- Integrated network access switching and multipoint control unit (MCU)
- Standards based wide area networking and video codec support
- Easy-to-use and manage
- Cost-effective, flexible, scalable configurations
- Integrated voice, video, and data with multipoint videoconferencing
- Supports 4 to 32 video sites

VideoSwitch Express

Video Networking Solutions



The Madge VideoSwitch Express provides integrated wide area network access switching with a built-in four-port videoconference multipoint control unit (MCU)—all at low breakthrough pricing. It is designed to provide reliable, flexible, integrated access switching and MCU capabilities to branch office sites or individual floors of large buildings where lower volume network access and multipoint videoconferencing is sufficient.

Customer Benefits

- Cost-effective network access
- Standards based wide area networking and video codec support
- Easy-to-use and manage through front panel display

Product Features

- Up to 3 T1/Primary Rate ISDN (PRI) connection
- Up to 16 Basic Rate ISDN (BRI) connections
- Up to 4 Synchronous interface ports for V.35, RS449, or X.21 connections

VideoSwitch MCU4 Module

Video Networking Solutions

The Madge VideoSwitch MCU4 plug-in module is a four port videoconference multipoint control unit (MCU) for use in the Madge AccessSwitch 60 and AccessSwitch 200 wide area network access systems. Modular construction facilitates the configuration of flexible, scalable, integrated wide area access, switching, and multipoint videoconferencing systems.

Customer Benefits

- Flexible, scalable, multipoint videoconferencing capability
- Standards based wide area networking and video codec support
- Local, national, and international multipoint videoconferencing

Product Features

- Up to 32 videoconference ports using multiple modules
- H.320, H.243, H.261, H.221, G.711, G.722, G.728 Standards compliant
- Speeds from 112 to 384 Kbps

Professional Services



Professional Services

Madge Networks provides
end-to-end networking
planning, design,
and analysis services
through its Professional
Services program.

The Professional Services group is staffed by highly experienced and skilled network consultants who understand the rapid rate of technology innovation, as well as the time and resource constraints many network managers face today as they upgrade their existing networks. As LAN and WAN technologies continue to evolve, and the convergence of data, voice, and video over an ATM network becomes a reality, Madge's Network Architects™ and WAN consultants can assess the customer's network capacity needs and design appropriate networks to meet these needs.

Customer Benefits

Increasingly, organizations are interested in maximizing their return on investment in network resources, which often means rethinking overall network design and its effectiveness in meeting business goals. Madge's Professional Services staff can provide objective assistance in avoiding technology dead ends, phasing in new technology implementations appropriately, and meeting network design goals.

Product Line Features

- Network architecture analysis
- Switched network design validation
- Network evolution planning & design
- Switched wide area network design
- Network video conference solutions
- Project management services

Network Architecture Analysis

Professional Services

The Madge Network Architecture Analysis provides an analysis of the overall behavior of the LAN infrastructure. Certain aspects of this analysis might provide insight into network topology and configuration, load on and placement of servers as network resources, and bandwidth usage by groups and client segments. The deliverable is a comprehensive report that contains the results of the end-to-end network traffic analysis, together with graphs and commentary explaining these results.

Customer Benefits

- Receive comprehensive view of network traffic
- Make decisions on quantitative, not qualitative, analysis
- Manage LAN evolution with greater confidence

Program Features

- Accurate topology map
- Over 25 categories of detailed resource analysis
- Expert analysis and recommendations

Switched Network Design Validation

Professional Services

Expanding an existing network's configuration using switching technology can result in improved performance. Network design and performance trade-offs can be verified using the Madge Switched Network Validation service. This service provides network diagrams, tables of bridges parameters, as well as an analysis of the current network scenario, and suggestions for how to improve fault tolerant network designs.

Customer Benefits

- Maximize performance capabilities of switched networks
- Eliminate unforeseen design problems with fault-tolerant networks
- Minimize broadcast traffic via optimal network design

Program Features

- Detailed analysis presented in tabular and graphical format
- Analysis of Spanning Tree Protocol and Topology
- Analysis of All Routes Explorer Hop Count Limits

Network Evolution Planning and Design

Professional Services

The Madge Network Evolution Plan helps network managers plan new technology deployment while meeting their business requirements. Madge Network Evolution Planning evaluates the effects of network changes before making them, maximizing the overall efficiency of the network and the impact of new network designs. This service includes the development of a strategic plan for network infrastructure and the examination of business objectives that influence network planning.

Customer Benefits

- Evaluate several network designs before making costly commitments
- Plan technology deployment that meets business needs
- Maximize return on investment of time and resources

Program Features

- Creation of 'what if' scenarios for several network designs
- Modeling the proposed LAN design
- Comprehensive report

Switched Wide Area Network Design and Implementation

Professional Services

The Madge Switched WAN Design service begins with an assessment of a company's business or application requirements as a prerequisite to developing a WAN design and implementation plan. This service examines bandwidth requirements, network reliability, post-installation support requirements, and the true cost of ownership.

Customer Benefits

- Maximize performance capabilities of switched WANs
- Plan WAN capacity that supports business requirements
- Manage WAN bandwidth with greater confidence

Program Features

- Creation of private and public dial plans for switched networks
- Allocation and placement of public and private network access circuits
- Allocation and placement of premises-based equipment

Network Videoconference Solutions

Professional Services

The Madge Professional Services group has experience in delivering switched network video applications that permit videoconferencing between room and desktop system users via network connections. Integration of video, voice, and data over a multiservice network is available for a variety of specialized applications including videoconference call centers, in-house videoconference bridge services, and private switched intranets with access to public switched networks.

Customer Benefits

- Increased competitive advantage in dynamic markets
- Maximize use of personnel
- Reduce travel costs and face-to-face meeting expenses

Program Features

- Videoconference room solution
- Desktop conferencing solution
- Video kiosk applications

Project Management Services

Professional Services

The Madge Professional Services group manages and coordinates all aspects of a network integration project—thereby ensuring the network is well designed, accurately configured, properly installed, and operates as specified upon deployment. By carefully listening to our clients and working as a team to determine their requirements, the Professional Services group can specify a solution to match customers' technical and business needs.

Customer Benefits

- Supplement internal resources with specialized skills
- Achieve overall network integration objectives
- Access to global network resources

Program Features

- Execution of large projects in a phased approach
- Investigation and needs analysis report
- Specification and design, plus implementation and component integration

Products At A Glance



Products at a Glance

ATM Solutions

NAME	DESCRIPTION	ORDER #	WARRANTY
COLLAGE WORKGROUP ATM			
Collage 280 Workgroup ATM Switch	ATM25/Ethernet Stackable Workgroup Switch	35-10	1 Year
Collage 250 Workgroup ATM Switch	ATM25 Stackable Workgroup Switch	35-00	1 Year
Collage 215 - 155 Mbps Fiber Module	155 Mbps Fiber Module for Collage 250/280	35-20	1 Year
Collage 214 - 155 Mbps UTP Module	155 Mbps UTP Module for Collage 250/280	35-21	1 Year
Collage 218 - Stacking Bus Module	Stacking Bus Module for Collage 250/280	35-22	1 Year
Collage Workgroup ATM Starter Pack	Inclusive pack of Collage 280 Workgroup Switch and Adapters		1 Year*
		36-00	Lifetime**
Collage Workgroup ATM In a Box	Inclusive pack of Collage 250 Workgroup Switch and Adapters		1 Year*
		36-03	Lifetime**
Collage 25 PCI	25 Mbps ATM Adapter	32-00	Lifetime***
Collage 25 PCI - 10 Pack	Pack of 10 Adapters	32-10	Lifetime***
Collage 155 PCI Server (Fiber)	155 Mbps ATM Adapter - Fiber interface	32-01	Lifetime***
Collage 155 PCI Server (Fiber)	Pack of 10 Adapters	32-11	Lifetime***
10 Pack			
Collage 155 PCI Server (Copper)	Pack of 10 Adapters	32-12	Lifetime***
Collage 155 EISA Server (Fiber)	155 Mbps ATM Adapter - Fiber interface	32-03	Lifetime***
Collage 155 EISA Server (Fiber)	Pack of 10 Adapters	32-13	Lifetime***
Collage 155 EISA Server (Copper)	155 Mbps ATM Adapter - Copper interface	32-04	Lifetime***
Collage 155 EISA Server (Copper)	Pack of 10 Adapters	32-14	Lifetime***
Collage 155 PCI Client (Fiber)	155 Mbps ATM Client Adapter	32-05	Lifetime***
Collage 155 PCI Client (Fiber) -	Pack of 10 Adapters	32-15	Lifetime***
10 Pack			
Collage 155 PCI Client (Copper)	155 Mbps ATM Client Adapter	32-06	Lifetime***
Collage 155 PCI Client (Copper)	Pack of 10 Adapters	32-16	Lifetime***

* Switch, ** Adapter Hardware, *** Hardware

COLLAGE BACKBONE AND ACCESS SWITCHES

Mainframes:

Collage 740	Backbone ATM Switch with LANE Services	57-70	1 year
Collage 740	Backbone ATM Switch (No LANE Services)	57-81	1 year
Collage 742	ABR/ER upgrade	57-72	1 year
Collage 742	ABR/ER upgrade	57-72	1 year

COLLAGE BACKBONE AND ACCESS SWITCHES (Continued)

Modules for Collage 740:

Collage 743	4 port 155M fiber module (multimode)	57-73	1 year
Collage 763	4 port 155M fiber module (single mode)	57-79	1 year
Collage 764	4 port 155M fiber module (2 x S, 2 x M-mode)	57-80	1 year
Collage 744	4 port 155M UTP module	57-76	1 year
Collage 749	LANE server software	85-09	1 year
Collage 749	Power Supply Module	57-77	1 year
Collage 749	Backup Power Supply Unit	57-97	1 year
Collage 746	Expansion module	avail mid-97	
Collage 755	622M (OC12) fiber module	avail mid-97	
Collage 711	4 port T1 UNI module	avail mid-97	
Collage 712	4 port E1 UNI module	avail mid-9	

Mainframes:

Collage 540	Token Ring to ATM Access switch (STP Ports)	57-50	1 year
Collage 540	Token Ring to ATM Access switch (UTP Ports)	57-51	1 year

Modules for Collage 540:

Collage 541	155M ATM Fiber Module (multimode)	57-52	1 year
Collage 542	155M ATM Fiber Module (single mode)	57-53	1 year
Collage 543	155M ATM UTP module	57-54	1 year
Collage 530	Ethernet to ATM Access Switch 220 V	851120	1 year
Collage 530	Ethernet to ATM Access Switch 110 V	851121	1 year

Products at a Glance

Modular Switched and Shared Solutions

NAME	DESCRIPTION	ORDER # WARRANTY
MULTINET ENTERPRISE SWITCHING HUBS		
LET-10/115	5-slot MultiNet Hub 115 VAC	831009 1 year
LET-10/230	5-slot MultiNet Hub 230 VAC	831010 1 year
LET-20/115	10-slot MultiNet Hub 115 VAC	830005 1 year
LET-20/230	10-slot MultiNet Hub 230 VAC	830006 1 year
LET-20/48	10-slot MultiNet Hub 48 VDC	830007 1 year
LET-36/01/115	18-slot MultiNet Hub 115 VAC	830003 1 year
LET-36/01/230	18-slot MultiNet Hub 230 VAC	830004 1 year
MULTINET BACK UP POWER SUPPLIES		
BUPS-36/01	Backup Power Supply for LET-36 hub 115 V	890119 1 year
BUPS-36/01	Backup Power Supply for LET-36 hub 230 V	890120 1 year
Clip-on Filter	Dual Power Clip-on Filter for BUPS-36/01	890131 1 year
LPS-225/115	Backup Power Supply for LET-20 hub 115 V	890127 1 year
	Backup Power Supply for LET-20 hub - 48 V	890128 1 year
BUPS-10/115	Backup Power Supply for LET-10 hub 115 V	890117 1 year
BUPS-10/230	Backup Power Supply for LET-10 hub 230 V	890118 1 year
BUPS-10/DP	Dual Power Cord for BUPS-10/115 115 V	890121 1 year
BUPS-10/DP	Dual Power Cord for BUPS-10/230 230 V	890122 1 year
LANSWITCH		
LSA	LANswitch ATM Access Switch	860203 1 year
LSE-108	10BASE-T Ethernet Workgroup Switch Module (8 ports) 8 users, 10 Mbps	860001 1 year
LSE-208	10BASE-T Ethernet Workgroup Switch Module (8 ports) 16 users, 20 Mbps	860003 1 year
LSE-808	10BASE-T Ethernet Workgroup Switch Module (8 ports) 64 users, 80 Mbps	860002 1 year
LSE-404S/RJ	10BASE-T Ethernet Segment Switch Module (4 ports)	860009 1 year
LSE-404S/FL	FOIRL Ethernet Segment Switch Module (4 ports)	860008 1 year
LSE-404S/FB	10BASE-FB Ethernet Segment Switch Module (4 ports)	860013 1 year

LANSWITCH (Continued)

LSE-404S/FL	FOIRL Ethernet Segment Switch Module (4 ports)	860008 1 year
LFE-100	100BASE-T Ethernet Server Switch Module	860020 1 year
LFE-1008	100BASE-T Ethernet Switch Module (8 ports)	860021 1 year
LFE-4004	LANswitch Fast Ethernet Server Switch	860020 1 year
LEB-200	LANswitch Fast Ethernet Backbone Link	860170 1 year
LHB	Fiber-optic Backbone Switch Module	860101 1 year
LSF-100/DAS	FDDI Backbone Switch Module	860201 1 year
LSE-MON	Cellenium Ethernet Bus Monitor	860015 1 year
LST-168	Token Ring Switch Module (8 ports)	860160 1 year
LNS	LANswitch Network Layer Switch	860185 1 year

SHARED ETHERNET MODULES

LE-20R	Dual Port 10BASE-FL Ethernet Module 3U	831024 1 year
LE-120R	5-port 10BASE-FL Ethernet Module 6U	833021 1 year
LE-20N	Dual Port 10BASE-FB Ethernet Module 3U	831027 1 year
LE-20S	Dual Port 10BASE-FB Ethernet Module (single mode) 3U	831025 1 year
LE-120Q	5-Port 10BASE-FB Static Port Switching Module	833025 1 year
LE-110BQ	6-Port 10BASE-2 Ethernet Repeater Module BNC connectors	833011 1 year
LE-110CQ	3-Port Thick-Coax Ethernet Repeater Module AUI connectors	833013 1 year
LE-115Q	3-Port Thick-Coax Ethernet Transceiver Module AUI connectors	833012 1 year
LCL-100	Ethernet Backup Clock/Network Activity Monitor	831086 1 year
MONITOR II	Ethernet Dual-Bus Activity Monitor	831081 1 year

10BASE-T MODULES

LE-140XTC	12-Port 10BASE-T Ethernet Module TELCO	833044 1 year
LE-140XTQ	10-Port 10BASE-T Static Port Switching Module RJ45	833049 1 year

10BASE-T MODULES (Continued)

LE-140XTQ/C	10-Port 10BASE-T Static Port Switching Module TELCO	833050	1 year
LE-140XTF/ST	14-Port Mixed Media Ethernet Module (10BASE-T and 10BASE-FB) TELCO and ST	833047	1 year
LE-180XT	12-Port 10BASE-T Ethernet Module RJ45	833056	1 year
LE-280XT	24-Port 10BASE-T Ethernet Module RJ45	833053	1 year
LE-240XTC	12-Port 10BASE-T Ethernet Module TELCO	833052	1 year
LE-280XTS	24-Port 10BASE-T Ethernet Security Module RJ45	833055	1 year
LE-240XTCS	24-Port 10BASE-T Ethernet Security Module TELCO	833054	1 year

TOKEN RING MODULES

LTR-104/SN	10-port UTP/STP Token Ring MAU module Passive ports	844053	1 year
LTR-104A	10-port UTP/STP Token Ring MAU module Active ports	844052	1 year
LTR-104/F	4-port Fiber-Optic Token Ring MAU module	844071	1 year
LTR-108/F	8-port Mixed Media Token Ring Repeater module	844087	1 year
LTR-T	UTP Token Ring Backbone Repeater Module 3U	843101	1 year

FDDI MODULES

LFD-104/MC	4-port FDDI Concentrator Module multimode/MIC	855001	1 year
LFD-104/MM	4-port FDDI Concentrator Module multimode/ST	855002	1 year
LFD-104/SM	4-port FDDI Concentrator Module single mode/ST	855004	1 year
LFD-104/RJ	4-port FDDI Concentrator Module UTP/STP RJ45	855008	1 year

ROUTERS

IEFN	Ethernet Feeder Node	852101	1 year
ITFN	Token Ring Feeder Node	852151	1 year
IEQR	Ethernet Quad Router Module	852251	1 year
IEFR	Ethernet to FDDI Router Module MIC connector	852201	1 year

NETWORK MANAGEMENT AGENTS

NMA-II	Ethernet Management Agent Please contact your local sales representative for precise version and ordering information		
NMA-36/TR	Token Ring Management Agent Please contact your local sales representative for precise version and ordering information		
NMA-RE	RISC-based Ethernet Management Agent Please contact your local sales representative for precise version and ordering information		
NMA-RTTR	RISC-based Token Ring Management Agent Please contact your local sales representative for precise version and ordering information		
NMA-RS	LANswitch Management Agent Please contact your local sales representative for precise version and ordering information		
LSE-PM	LANswitch Port Monitor	860022	1 year
IERP	Ethernet RMON Management Probe Please contact your local sales representative for precise version and ordering information		

Products at a Glance

Stackable and Standalone Hubs and Switches

NAME	DESCRIPTION	ORDER #	WARRANTY
MADGE STACK			
SmartCAU Plus	Controlled Access Unit: UK cord	55-27	1 year
SmartCAU Plus	Controlled Access Unit: US cord	55-28	1 year
SmartCAU Plus	Controlled Access Unit: Euro cord	55-29	1 year
SmartCAU Plus	Controlled Access Unit: Australian cord	55-288	
SmartCAU Plus	Controlled Access Unit: Japanese cord	55-289	
UTP Trunk Link Module Plus	RI/RO connection for SmartCAU Plus	55-24	1 year
Fiber Trunk Link Module Plus	RI/RO connection for SmartCAU Plus	55-26	1 year
SmartRAM / STP	Ring Access Module, 20 port intelligent hub: UK cord	55-30	1 year
SmartRAM / STP	Ring Access Module, 20 port intelligent hub: US cord	55-31	1 year
SmartRAM / STP	Ring Access Module, 20 port intelligent hub: Euro cord	55-32	1 year
SmartRAM / STP	Ring Access Module, 20 port intelligent hub: Japanese cord	55-319	1 year
SmartRAM / UTP	Ring Access Module, 20 port intelligent hub: UK cord	55-33	1 year

MADGE STACK (Continued)

SmartRAM / STP	Ring Access Module, 20-port intelligent hub: Australian cord	55-318	1 year
SmartRAM / STP	Ring Access Module, 20-port intelligent hub: Japanese cord	55-319	1 year
SmartRAM / UTP	Ring Access Module, 20-port intelligent hub: UK cord	55-33	1 year
SmartRAM / UTP	Ring Access Module, 20-port intelligent hub: US cord	55-34	1 year
SmartRAM / UTP	Ring Access Module, 20-port intelligent hub: Euro cord	55-35	1 year
SmartRAM / UTP	Ring Access Module, 20-port intelligent hub: Australian cord	55-348	1 year
SmartRAM / UTP	Ring Access Module, 20-port intelligent hub: Japanese cord	55-349	1 year
SmartLAM / STP	20 port Lobe Attachment Module for SmartCAU Plus	55-10	1 year
SmartLAM / UTP	20 port Lobe Attachment Module for SmartCAU Plus	55-12	1 year
Smart Ringswitch	8 port UTP/STP complete switch	57-10	1 year
Smart Ringswitch	8-port UTP/STP complete swuitch	57-10	1 year
Smart Ringswitch	12-port UTP/STP complete switch	57-11	1 year
Smart Ringswitch	8-port fiber ccomplete switch	57-20	1 year
Smart Ringswitch	12-port fiber complete switch	57-22	1 year
Smart Ringswitch	Chassis and PSU	57-96	1 year
Smart Ringswitch	Mainframe	57-96	1 year
Smart Ringswitch	Switch module	57-95	1 year
Smart Ringswitch	4-port UTP/STP module	57-91	1 year
Smart Ringswitch	4-port fiber module	57-92	1 year
Smart Ringswitch	FDDI fiber uplink module	57-93	1 year
Smart Ringswitch	ATM 155M multimode fiber uplink module	57-94	1 year
Smart Ringswitch	RMON remote monitoring software license	84-27	
Smart Ringbridge	Local bridge: UK cord	58-20	1 year
Smart Ringbridge	Local bridge: US cord	58-21	1 year

MADGE STACK (Continued)

Smart Ringbridge	Local bridge: Euro cord	58-22	1 year
Smart Ringbridge	Local bridge: Australian cord	58-218	1 year
Smart Ringbridge	Local bridge: Japanese cord	58-219	1 year
LANSTACK			
SH-E8/230	8-port LANstack Ethernet hub 230 VAC	820002	1 year
SH-E8/115	8-port LANstack Ethernet hub 115 VAC	820004	1 year
SH-E16/230	16-port LANstack Ethernet hub 230 VAC	820001	1 year
SH-E16/115	16-port LANstack Ethernet hub 115 VAC	820003	1 year
SH-E24/230	24-port LANstack Ethernet hub 230 VAC	820006	1 year
SH-E24/115	24-port LANstack Ethernet hub 115 VAC	820005	1 year
SH-E24S/230	24-port LANstack Ethernet Security Hub 230 VAC	820008	1 year
SH-E24S/115	24-port LANstack Ethernet Security Hub 115 VAC	820007	1 year
SH-EFL	LANstack 10BASE-FL Backbone Card ST connectors	820011	1 year
SH-EFB	LANstack 10BASE-FB Backbone Card ST connectors	820013	1 year
SH-EFN/230	LANstack Ethernet Feeder Node 230 VAC	820370	1 year
SH-EFN/115	LANstack Ethernet Feeder Node 115 VAC	820371	1 year
SH-TFN/230	LANstack Token Ring Feeder Node 230 VAC	820320	1 year
SH-TFN/115	LANstack Token Ring Feeder Node 115 VAC	820321	1 year
SH-EMA	LANstack Ethernet Management Agent Please contact your local sales representative for precise version and ordering information		
SH-TMA	LANstack Token Ring Management Agent Please contact your local sales representative for precise version and ordering information		
SH-T16/230	16-port LANstack Token Ring hub 230 VAC	820101	1 year
SH-T16/115	16-port LANstack Token Ring hub 115 VAC	820103	1 year
SH-TFR/ST	LANstack Fiber-optic RI/RO Repeater ST connectors	820111	1 year
SH-TCR	LANstack Copper RI/RO Repeater RJ45 connectors	820110	1 year

VISAGE STACKABLE WORKGROUP SWITCHES

Visage 24T	Workgroup Switch with 24 10BASE-T ports RJ45	864001	1 year
Visage 16200T	Workgroup Switch with 16 10BASE-T and two 100BASE-TX ports RJ45	864003	1 year
Visage 16200F	Workgroup Switch with 16 10BASE-T and two 100BASE-FX ports RJ45/SC multimode fiber	864005	1 year
Visage 800T	Workgroup Switch with eight 10/100BASE-TX ports RJ45	864011	1 year
Visage Exoplane	Interconnector for Visage Workgroup Switches	864013	1 year
Visage NMA	Network Management Agent	864012	1 year
Visage SMON	SMONMaster add-on package (one per Visage cluster) Please contact your local sales representative for precise information regarding software version, ordering numbers and availability		

STANDALONE ETHERNET DEVICES

LE-25/ST	10BASE-FB Ethernet Transceiver	831227	1 year
LE-25/S	10BASE-FB Ethernet Transceiver single mode/ ST	831233	1 year
LE-26/ST	10BASE-FB Ethernet Transceiver w/Redundancy	831228	1 year
LE-25R/ST	10BASE-FL Ethernet Transceiver	831232	1 year
LE-26FL/ST	10BASE-FL Ethernet Transceiver w/Redundancy	831240	1 year
LE-45T	10BASE-T UTP Transceiver	831347	1 year
LE-45Tm	Miniature 10BASE-T UTP Transceiver	831348	1 year
LE-46T	10BASE-T UTP Transceiver w/Redundancy	831349	1 year

Products at a Glance

Network Adapters

NAME	DESCRIPTION	ORDER #	WARRANTY
TOKEN RING ADAPTERS			
Smart 16/4 PCI (bus master)	High-performance solution for PCI client & server use	51-02	Lifetime
Smart 16/4 Fiber PCI (bus master)	High-performance solution for PCI client & server use	51-09	Lifetime
Blue+ 16/4 ISA PnP	General purpose, high-performance ISA adapter. Ideal for IBM-centric client applications.	62-03	Lifetime
Smart 16/4 ISA Client PnP	Best for complex client applications, requiring the benefits of Smart s/w, for fast ISA PCs	22-04	Lifetime
Smart 16/4 AT Plus	The fastest, most versatile and fully featured ISA adapter available today	52-03	Lifetime
Smart 16/4 PCMCIA	Versatile and high-performance PC Card solution for notebooks & laptops	20-00	Lifetime
Smart 16/4 EISA	Ultimate in 32-bit performance and efficiency for EISA-based servers	52-08	Lifetime
Smart 16/4 MC32	Ultimate in 32-bit performance and efficiency for MC-based servers	54-09	Lifetime
Smart 16/4 MC	Versatile and high performance solution for MC PCs	54-08	Lifetime
LAN Support Software	Network drivers and utilities for Smart 16/4 Ringnodes (shipped with every adapter as standard)		Updates from BBS
Fast Blue	Network drivers and utilities for Blue+ 16/4 ISA Adapter AND IBM shared memory adapters (single user license included with every Blue+)		Updates from BBS
SCO UNIX Option	LLI driver for SCO Open Desktop 2..0 and above., Certified support for ATP and EISA (updates planned)	87-00	Updates from BBS
AIX Option	Driver for AIX 3.2.5 or earlier for RS/6000 Certified support for MC32 and MC (updates planned)	87-01	Updates from BBS
Solaris UNIX Option	Driver for SunSoft Solaris 2.1 and below Certified support for EISA, ATP, MC32, MC (updates planned)	87-02	Updates from BBS
UnixWare Option	Driver for UnixWare 1.0, 1.1 and 2.0 Certified support for EISA, ATP, MC32, MC (no updates planned)	87-03	Updates from BBS#

TOKEN RING ADAPTERS (Continued)

HP-UX Option	Driver for HP-UX Certified and shipped by HP under license only	Available from HP only
Smartrom for Novell	Flash ROM option for EISA, MC32, MC - NetWare	82-07 Lifetime
Smartrom for RPL	Flash ROM option for EISA, MC32, MC - RPL	82-09 Lifetime

ATM ADAPTERS

Collage 25 PCI	25 Mbps ATM Adapter	32-00 Lifetime
Collage 155 PCI Server (Fiber)	155 Mbps Adapter - Fiber interface	32-01 Lifetime
Collage 155 PCI Server (Copper)	155 Mbps Adapter - Copper interface	32-02 Lifetime
Collage 155 EISA Server (Fiber)	155 Mbps Adapter - Fiber interface	32-03 Lifetime
Collage 155 EISA Server (Copper)	155 Mbps Adapter - Copper interface	32-04 Lifetime
Collage 155 PCI Client (Fiber)	155 Mbps Client Adapter - Fiber interface	32-05 Lifetime
Collage 155 PCI Client (Copper)	155 Mbps Client Adapter - Copper interface	32-06 Lifetime*

* Hardware

Products at a Glance

Network Management

NAME	DESCRIPTION	ORDER #WARRANTY
MultiMan/OV	MultiMan Network Management for HP OpenView for SUN. Option to purchase MultiMan bundled with the HP OpenView platform. Please contact your local sales representative for precise information regarding software versions, applications, ordering numbers, and availability	
MultiMan/60003.0	MultiMan Network Management for IBM NetView for AIX (NV v. 3.1 AIX 3.2.5) Please contact your local sales representative for precise information regarding software versions, add-on applications, ordering numbers, and availability	
MultiMan/9000/OV	MultiMan Network Management for HP OpenView for HP9000. Please contact your local sales representative for precise information regarding software versions, add-on applications, ordering numbers, and availability	
MultiMan/WIN	MultiMan Network Management for HP OpenView for Windows. Please contact your local sales representative for precise information regarding software versions, ordering numbers, and availability	
DecodeMaster	Protocol Decode Application for MultiMan. Please contact your local sales representative for precise information regarding software versions, ordering numbers, and availability	
RMONMaster	RMON Ethernet Monitoring Application for MultiMan. Please contact your local sales representative for precise information regarding software versions, ordering numbers, and availability	

NETWORK MANAGEMENT (Continued)

SMONMaster	Switch Monitoring Application for MultiMan. Please contact your local sales representative for precise information regarding software versions, ordering numbers, and availability		
VirtualMaster	VLAN Management Application for MultiMan. Some versions of MultiMan include InterMaster as part of the basic package. Please contact your local sales representative for precise information regarding software versions, ordering numbers, and availability		
InterMaster	Bridge Management Application for MultiMan. Some versions of MultiMan include InterMaster as part of the basic package. Please contact your local sales representative for precise information regarding software versions ordering numbers, and availability		
AMONMaster	ATM Monitoring Application. Please contact your local sales representative for precise information regarding software versions, ordering numbers and availability		
Terrain Master 1.0	Powerful diagnostic tool		
TrueView Ring Manager 1.0 for Windows		84-14	90-day media warranty
TrueView Ring Manager 1.0 for HP OpenView for Windows		84-25	90-day media warranty
TrueView Ring Manager 1.0 for HP OpenView for HP-UX		84-30	90-day media warranty
TrueView Ring Manager 1.0 for IBM NetView for AIX		84-32	90-day media warranty
TrueView Ring Manager 1.0 for HP OpenView for SUN Solaris		84-34	90-day media warranty
TrueView Ring Manager 4.0 for Windows		84-50	90-day media warranty
TrueView Ring Manager 4.0 for HP OpenView for HP-UX		84-43	90-day media warranty
TrueView Ring Manager 4.0 for IBM NetView for AIX		84-46	90-day media warranty
TrueView Ring Manager 4.0 for HP OpenView for SUN Solaris		84-48	90-day media warranty
TrueView CAU/Bridge device managers 1.0 for HP OpenView for HP-UX		84-31	90-day media warranty
TrueView CAU/Bridge device managers 1.0 for IBM NetView for AIX		84-33	90-day media warranty
TrueView CAU/Bridge device managers 1.0for HP OpenView for SUN Solaris		84-35	90-day media warranty
TrueView Ringswitch device manager 1.4 for HP OpenView for HP-UX		84-40	90-day media warranty
TrueView Ringswitch device manager 1.4 for IBM NetView for AIX		84-41	90-day media warranty
TrueView Ringswitch device manager 1.4 for HP OpenView for SUN Solaris		84-42	90-day media warranty
TrueView Token Ring device managers 1.0 for HP OpenView for HP-UX		84-44	90-day media warranty
TrueView Token Ring device managers 1.0 for HP IBM NetView for AIX		84-45	90-day media warranty
TrueView Token Ring device managers 1.0 for HP OpenView for SUN Solaris		84-47	90-day media warranty

NETWORK MANAGEMENT (Continued)

TrueView Advanced Agent	Hub-resident Smart agent for Windows-based TrueView 3.0 architecture environments	84-15	90-day media warranty
TrueView Advanced Agent License	Smart agent license for Windows-based TrueView 4.0 architecture and UNIX environments	84-26	90-day media warranty

Products at a Glance

WAN Access and Switching Solutions

NAME	DESCRIPTION	ORDER #	WARRANTY
AccessSwitch 20	Access switching capabilities for branch office sites or individual floors of large buildings	M020-00XX	1 year
AccessSwitch 60 Slotted Hub	Access switching capabilities for medium size corporate sites, regional, and international locations	M060-00XX	1 year
AccessSwitch 200 Slotted Hub	Access switching capabilities for large corporate sites, regional, and international locations	M2EX-000X	1 year
AccessSwitch Digital Network Interface Modules	Individual modules for the AccessSwitch 60 or AccessSwitch 200 chassis	QDIU/DDIU/ QEIU/DEIU/ SEIU-000X	1 year
AccessSwitch Synchronous Data Interface Module	Plug-in module for either the AccessSwitch 60 or AccessSwitch 200 chassis	QRVX-000X	1 year
AccessSwitch-Basic Rate ISDN (BRI) Interface Modules	Plug-in modules for the AccessSwitch 60 or AccessSwitch 200 chassis featuring S.T, or U interface	OBIU/OBIU- U-000X	1 year

WAN ACCESS AND SWITCHING SOLUTIONS (Continued)

AccessSwitch AccessWare System Software	AccessSwitch's powerful operating system and network management software	SYSW- 000X	1 year
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Products at a Glance
Video Networking Solutions

NAME	DESCRIPTION	ORDER #	WARRANTY
VideoSwitch Express	Integrated wide area network access switching with a built-in four-port videoconference MCU	M020-00XX	1 year
VideoSwitch Four-Port MCU Module	Plug-in four-port VideoSwitch multipoint control unit (MCU) for use in the AccessSwitch 60 and AccessSwitch 200	MCU4-0001	1 year

Index

11

Index

A

ADAPTERS

ATM

Collage 25 Adapter

Collage 155 Adapter

Token Ring

Blue+ 16/4 ISA PnP Adapter

Easy Installation and

Management Utilities

Fast Blue Software

LAN Support Software

Smart 16/4 PCI Ringnode

Smart 16/4 Fiber PCI Ringnode

Smart 16/4 ISA Client PnP Ringnode

Smart 16/4 AT Plus Ringnode

Smart 16/4 PCMCIA Ringnode

Smart 16/4 EISA Ringnode

Smart 16/4 MC32 Ringnode

Smart 16/4 MC Ringnode

Smartrom

UNIX Software

ATM

Access Switches

Collage 530 Ethernet to ATM

Collage 540 Token Ring to

ATM Access Switch

LANswitch LSA ATM Access Switch

Adapters

Collage 25 Adapter

Collage 155 Adapter

Backbone Switch

Collage 740 Backbone ATM Switch

Workgroup Switches

Collage 280 Workgroup ATM Switch

Collage 250 Workgroup ATM Switch

B

BACK UP POWER SUPPLIES

MultiNet BUPS-36/01 Backup Power
Supply for LET-36 Hub

MultiNet LPS-225 Backup Power
Supply for LET-20 Hub

MultiNet BUPS-10 Backup Power
Supply for LET-10 Hub

BRIDGES

Smart Ringbridge

BUS MONITORS

LANswitch LSE-MON Cellenium
and Ethernet Bus Monitor

MultiNet Monitor II Dual Ethernet
Bus Monitor

MultiNet LCL-100 Ethernet Backup
Clock/Activity Monitor

E

ENTERPRISE SWITCHING HUBS

AccessSwitch 20

AccessSwitch 60, Slotted hub, 6 slot

AccessSwitch 200, Slotted hub, 20 slot

MultiNet LET-10 Enterprise Switching Hub

MultiNet LET-20 Enterprise Switching Hub

MultiNet LET-36 Enterprise Switching Hub

ETHERNET

Bus Monitors

LANswitch LSE-MON Cellenium and Ethernet Bus Monitor

Hubs

LANstack SH-E8/16/24 Stackable Ethernet Hubs

LANstack SH-E24S Stackable Ethernet Security Hub

Modules

LE-140XTQ 10-port 10BASE-T Module

LE-140XTQ/C 10-port 10BASE-T Module

LE-14XTF 10BASE-T Media Module

LE-140XTC 12-port 10BASE-T Module

LE-180XT 12-port 10BASE-T Module

LE-240XTC 24-port 10BASE-T Module

LE-240XTCS 24-port 10BASE-T Module with Security

LE-280XT 24-port 10BASE-T Module

LE-280XTS 24-port 10BASE-T Module with Security

LE-140XTF/ST 14-port 10BASE-T Mixed-Media Module

LE-20R 2-Port FOIRL Ethernet Module

LE-120R 5-Port FOIRL Ethernet Module

LE-20N 2-Port 10BASE-FB Ethernet Module

LE-20S 2-Port 10BASE-FB Ethernet Module

LE-120Q 5-Port FOIRL Ethernet Module

LE-110BQ 6-Port Thin Coax Repeater

LE-110CQ 3-Port Thick Coax Repeater

LE-115Q 3-Port Thick Coax Transceiver

LCL-100/Monitor II Activity Monitors

Segment Switches

LANswitch LSE-404S/RJ 10BASE-T Ethernet Segment Switch

LANswitch LSE-404S/FL FOIRL Ethernet Segment Switch

LANswitch LSE-404S/FB

10BASE-FB Ethernet Segment Switch

Workgroup Switches

LANswitch LSE-108 Ethernet Workgroup Switch

LANswitch LSE-208 Ethernet Workgroup Switch

LANswitch LSE-808 Ethernet Workgroup Switch

Visage 24T Workgroup Switch

Visage 800T Workgroup Switch

Visage 16200T Workgroup Switch

Visage 16200F Workgroup Switch

F

FAST ETHERNET

Switches

LANswitch LFE-100 Fast Ethernet Server Switch

LANswitch LFE-1008 Fast Ethernet Switch

LANswitch LFE-4004 Fast Ethernet Switch

LANswitch LEB-200 Backbone Link

Visage 800T Workgroup Switch

FDDI

Backbone Switch

LANswitch LSF-100 FDDI Backbone Switch

Modules

LFD-104/MC 4-port Multimode Concentrator

LFD-104/MM 4-port Multimode Concentrator

LFD-104/SM 4-port Single-Mode Concentrator

LFD-104/RJ 4-port UTP/STP Concentrator

FIBER OPTIC

Backbone Switch

LANswitch LHB Fiber Optic Backbone Switch

H

HUBS

Enterprise Switching

AccessSwitch 20

AccessSwitch 60, Slotted hub, 6 slot

AccessSwitch 200, Slotted hub, 20 slot LET-10
Enterprise Switching Hub

LET-20 Enterprise Switching Hub

LET-36 Enterprise Switching Hub

Ethernet

LANstack SH-E8/16/24 Stackable Ethernet Hubs

LANstack SH-E24S Stackable Ethernet
Security Hub

Stackable

LANstack SH-E8/16/24 Stackable Ethernet Hubs

LANstack SH-E24S Stackable Ethernet
Security Hub

LANstack SH-T16 Stackable Token Ring Hub

SmartCAU Plus

SmartLAM

SmartRAM

Token Ring

LANstack SH-T16 Stackable Token Ring Hub

SmartCAU Plus

SmartLAM

SmartRAM

N

NETWORK MANAGEMENT

AccessWare System Software and Network
Management Console

InterMaster

MultiMan Network Management System

Decode Master

RMONMaster

SMONMaster

AMONMaster

TerrainMaster

TrueView Ring Manager - Windows versions

TrueView Ring Manager - UNIX versions

VirtualMaster

NETWORK MANAGEMENT AGENTS

LANswitch LSE-PM Port Monitor Management
Agent

NMA-II Ethernet Management Agent

NMA-36TR Token Ring Management Agent

NMA-RE Ethernet Management Agent

NMA-RT Token Ring Management Agent

IERP Ethernet RMON Probe

NMA-RS SMON Management Agent for
LANswitch

Visage NMA Network Management Agent

P

PROFESSIONAL SERVICES

Network Architecture Analysis

Network Evolution Planning & Design

Network Video Conference

Project Management Services

Switched Network Design Validation

Switched Wide Area Network Design

R

ROUTERS

IEFN Ethernet Feeder Node w/Dual WAN ports

IEQR Ethernet Quad Router

IEFR Ethernet to FDDI Router

ITFN Token Ring Feeder Node
w/Dual WAN ports

S

STACKABLE HUBS AND SWITCHES

LANstack

SH-EFN Stackable Ethernet Feeder Node

SH-E8/16/24 Stackable Ethernet Hubs

SH-E24S Stackable Ethernet Security Hub

SH-EFL/SH-EFB Fiber-Optic Ethernet Backbone
Card

SH-EMA Management Agent for Ethernet Stackable Hubs
 SH-T16 Stackable Token Ring Hub
 SH-TFR/TCR Ring-in/Ring-out Repeater Card
 SH-TMA Management Agent for Token Ring Stackable Hubs
 SH-TFN Stackable Token Ring Feeder Node
Madge Stack
 SmartCAU Plus
 SmartLAM
 SmartRAM
 Smart Ringbridge
 Smart Ringswitch
Visage
 Visage 24T Workgroup Switch
 Visage 800T Workgroup Switch
 Visage 16200T Workgroup Switch
 Visage 16200F Workgroup Switch
 Visage Exoplane
 Visage NMA Network Management Agent
 Visage SMON Add-on Package

SWITCHES

Access

AccessSwitch 20
 AccessSwitch 60, Slotted hub, 6 slot
 AccessSwitch 200, Slotted hub, 20 slot
 Collage 530 Ethernet to ATM
 Collage 540 Token Ring to ATM Access Switch
 LANswitch LSA ATM Access Switch

Backbone

Collage 740 Backbone ATM Switch
 LANswitch LSF-100 FDDI Backbone Switch
 LANswitch LEB-200 Backbone Link
 LANswitch LHB Fiber Optic Backbone Switch
 Smart Ringswitch

Ethernet

LANswitch LSE-404S/RJ 10BASE-T Ethernet Segment Switch
 LANswitch LSE-404S/FL FOIRL Ethernet Segment Switch
 LANswitch LSE-404S/FB 10BASE-FB Ethernet

Segment Switch

LANswitch LSE-108 Ethernet Workgroup Switch
 LANswitch LSE-208 Ethernet Workgroup Switch
 LANswitch LSE-808 Ethernet Workgroup Switch

Fast Ethernet

LANswitch LFE-100 Fast Ethernet Server Switch
 LANswitch LFE-1008 Fast Ethernet Switch
 LANswitch LFE-4004 Fast Ethernet Switch
 Visage 800T Workgroup Switch

Fiber Optic

LANswitch LHB Fiber-Optic Backbone Switch

FDDI

LANswitch LSF-100 FDDI Backbone Switch

Network Layer Switch

LANswitch LNS Network Layer Switch

Segment

LANswitch LSE-404S/RJ 10BASE-T Ethernet Segment Switch

LANswitch LSE-404S/FL FOIRL Ethernet Segment Switch

LANswitch LSE-404S/FB 10BASE-FB Ethernet Segment Switch

Token Ring

LANswitch LST-168 Token Ring Switch
 Smart Ringswitch

Video

VideoSwitch MCU4, four-part MCU module
 VideoSwitch Express

WAN Access

AccessSwitch 20
 AccessSwitch 60, Slotted hub, 6 slot
 AccessSwitch 200, Slotted hub, 20 slot

Workgroup

Collage 280 Workgroup ATM Switch
 Collage 250 Workgroup ATM Switch
 LANswitch LSE-108 Ethernet Workgroup Switch
 LANswitch LSE-208 Ethernet Workgroup Switch
 LANswitch LSE-808 Ethernet Workgroup Switch
 Visage 24T Workgroup Switch
 Visage 800T Workgroup Switch
 Visage 16200T Workgroup Switch
 Visage 16200F Workgroup Switch

Visage 16155F Workgroup Switch
Visage 16155FR Workgroup Switch

T

TOKEN RING

Adapters

Blue+ 16/4 ISA PnP Adapter
Easy Installation and Management Utilities
Fast Blue Software
LAN Support Software
Smart 16/4 PCI Ringnode
Smart 16/4 Fiber PCI Ringnode
Smart 16/4 ISA Client PnP Ringnode
Smart 16/4 AT Plus Ringnode
Smart 16/4 PCMCIA Ringnode
Smart 16/4 EISA Ringnode
Smart 16/4 MC32 Ringnode
Smart 16/4 MC Ringnode
Smartrom
UNIX Software

Bridges

Smart Ringbridge

Hubs

LANstack SH-T16 StackableToken Ring Hub
SmartCAU Plus
SmartLAM
SmartRAM

Modules

LTR-104/SN 10-port Token Ring MAU Module
LTR-104A 10-Active port MAU Module
LTR-104F/ST 4-port Fiber Optic MAU Module
LTR-108F/ST 8-port Mixed Media Repeater Module
LTR-T Token Ring Repeater

Switches

Collage 540 Token Ring to ATM Access Switch
LANswitch LST-168 Token Ring Switch
Smart Ringswitch

TRANSCEIVERS

LE-45Tm 10BASE-T Ethernet Transceiver
LE-45T 10BASE-T Ethernet Transceiver
LE-46T 10BASE-T Ethernet Transceiver
LE-25R Fiber-Optic Ethernet Transceiver
LE-25 Fiber-Optic Ethernet Transceiver
LE-26/LE-26FL Fiber-Optic Ethernet Transceiver with Redundancy

V

VIDEO SWITCHES

VideoSwitch MCU4, four-port MCU module
VideoSwitch Express

W

WAN ACCESS

Modules

Digital Network Interface Modules
Synchronous Data Interface Module
Basic Rate ISDN (BRI) Interface Modules

Switches

AccessSwitch 20
AccessSwitch 60, Slotted hub, 6 slot
AccessSwitch 200, Slotted hub, 20 slot
AccessWare System Software