

# networking solutions



a strategy for the future



protecting your investment



integrating technologies

**m**  
madge

# networking solutions

Token Ring is used by many large enterprises in the most demanding of business environments. These companies rely on Token Ring's performance, reliability, stability and predictability. The Madge family of switches addresses the needs of these enterprises, and provides a world-leading platform for today's intensive and critical IP-based applications.

a strategy  
for the future

### Gigabit IP Strategy

Madge Networks, as the leading supplier of enterprise solutions for Token Ring customers, has defined a clear product and technology roadmap ensuring that the advanced benefits of the Token Ring protocol can be preserved as networks scale to Gigabit speeds. Madge Networks' objective is to provide the best possible switched backbone solutions for customers with a significant installed base of Token Ring workgroups.

such as transaction processing, made few demands on the workgroup infrastructure. Today, however, data-intensive applications and the emergence of end-to-end IP-based multi-services are bringing much greater demands.

### End-to-End Expertise

Madge Networks' workgroup solutions are just part of a comprehensive product portfolio, complemented perfectly by a range of network adapters, desktop switches and backbone switches that are designed to meet the needs of mission-critical networks worldwide.

protecting  
your investment

### Protecting and Developing your Investment in Token Ring

Token Ring has always provided a stable and reliable network infrastructure. 100 Mbps Token Ring allows organizations to respond to new application needs whilst maintaining the benefits of installed Token Ring equipment. New investment in 100 Mbps is safeguarded by the continuing evolution of Token Ring technology, recently embracing Gigabit transport speeds.

### Powerful, Scalable Connectivity

Madge Networks provides powerful, scalable connectivity solutions that enable organisations to harness the full potential of their network investment whilst achieving superior performance, reliability and enhanced management features.

integrating  
technologies

### Workgroup Connectivity for the Future

Switched and shared hubs provide the connectivity that allows Local Area Network (LAN) services to be delivered to the desktop, supporting hundreds or even thousands of users.

### Featured Solutions

**Smart DeskStream** that offers desktop switching capability to increase performance at low cost.

**Backbone Solutions** that include the Smart Ringswitch family delivering reliable, manageable and versatile connectivity with Gigabit, Ethernet and ATM networks.

Early client-server applications,

**Management Solutions** that deliver powerful yet simple management tools through the TrueView/32 Enterprise to provide an integrated suite of management applications.

# Workgroup and

## Benefits of Smart Ringswitch

- **Reliability**  
Robust design, redundancy, and support for resilient network architectures ensures non-stop availability.
- **Manageability**  
Effective management maximizes network up-time, reduces installation and running costs, and assists planning for future expansion.
- **Compatibility and Flexibility**  
Easy integration is assured through support for different cabling media, switching modes, and high-speed networking technologies. Madge Network's commitment to industry standards ensures reliable interoperability with other equipment.
- **Resilience**  
The natural resilience of Token Ring networks are enhanced with features such as dual-redundant power supplies, redundant links, and user-selectable 'fast fail-over' one-for-one port redundancy.
- **Control**  
The intuitive graphical management interface provided by Madge's SNMP-based Ringswitch Manager application simplifies the management of Smart Ringswitch. Whilst Madge's Configuration Manager application allows proven switch configurations to be saved and later restored to other switches.
- **Remote MONitoring**  
Standards-based Remote MONitoring (RMON) support is fully integrated into the Smart Ringswitch family, covering all 10 groups. RMON information can be viewed using Ring Manager™, part of Madge's network management suite TrueView/32 Enterprise™, or third-party RMON management tools.
- **Investment Protection**  
Investment protection in Token Ring is provided through powerful scalability, multi-services support, and the ability to add features and functions with new option modules and simple software upgrades.

Smart Ringswitch Solutions comprise a range of scalable and affordable workgroup/backbone solutions to address the needs of the most demanding organizations. The Smart Ringswitch range provides best-of-class solutions for both large and small Token Ring backbones, supporting speeds of 4, 16, 100Mbps and Gigabit, offering versatile connectivity with ATM and Ethernet networks.

## Evolving Demands on the Backbone

With increased demands being placed on the backbone, driven by the growth of IP as a transport mechanism for data, and increasingly, real-time voice and video; Madge Networks offers a range of intelligent backbone solutions that facilitate both planned and unplanned network growth, promising an extended operational life without straining the budget.

## Smart Ringswitch Plus™

The Smart Ringswitch Plus offers a 6-slot modular platform that supports up to 36 UTP/STP or fiber Token Ring switch ports and speeds of 16/4 or 100 Mbps. The addition of the Third Layer Services (TLS) module provides support for layer 3 functionality for IP protocol and enhanced Active Broadcast Control™ (ABC) IP frame filtering within the switch. With support for transparent and source routed environments, the Smart Ringswitch Plus integrates easily into any Token Ring network.



Smart Ringswitch Plus™

# Backbone Solutions

## Smart Ringswitch™ Express Select

Launched in Spring 2002, the Smart Ringswitch Express Select has been designed in line with Madge Networks' strategy to offer Token Ring customers the most advanced switching capability with the maximum choice in connectivity.

Fully compatible with other devices within the Smart Ringswitch range, the Smart Ringswitch Express Select has an inbuilt CPU processor, is supported by the standard Ringswitch software and contains three option slots to take any combination of the Smart Ringswitch Option Modules, thus allowing customers broad configuration flexibility.

The latest arrival from Madge Networks presents improvements in the control and management of networks whilst delivering exceptional network performance, enabling customers to realize the continued business and cost-benefits of their investment in Token Ring.

A powerful and versatile switch, the new Smart Ringswitch Express Select offers ease of implementation with cost-effective integration of technologies such as Gigabit, ATM and Ethernet that customers have come to expect from Madge Networks.

- High Performance Architecture
- Flexible Option Slots
- Greatest Choice in Connectivity



Smart Ringswitch™ Express Select

## Smart Ringswitch Software

The rich functionality of the Smart Ringswitch family is the result of sophisticated microcode and management tools that together make up the Smart Ringswitch software:

- Source-Route Transparent (SRT) and SRT+ switching mode support
- Internal RMON probe (supports all 10 RMON groups) and port mirroring
- Active Broadcast Control™ (ABC) technology to filter unnecessary broadcast traffic
- Advanced Protocol Filtering for protocol-based management of traffic propagation
- Global source-route VLAN capability and per-port local VLANs
- Multiple Token Ring and Ethernet LAN Emulation Clients (LECs) on ATM.

## Smart Ringswitch Interface Options

There is a wide range of option modules available for the Smart Ringswitch family offering exceptional choice and flexibility:

- Token Ring 16/4 Mbps modules – 4- and 8-port versions, UTP/STP or fiber, supporting full duplex operation
- Token Ring 100 Mbps modules – 2- or 8-port fiber and 8-port UTP/STP versions, supporting full duplex operation
- Third Layer Services module – provides IP switching and routing for up to 16 subnets
- ATM 155 Mbps module – dual-redundant OC-3 ports with multi-mode or single-mode fiber interfaces
- Ethernet 10/100 Mbps module – 2 ports providing translational switching to Token Ring
- Gigabit Uplink Module.

## Smart Ringswitch Gigabit IP

The Smart Ringswitch Gigabit Uplink Module is both simple to install with configuration, diagnostics and control capabilities readily available via Madge's popular TrueView/32 device management application and already optimized for use with Token Ring networks.

Functions designed to minimize downtime and maximize data throughput, such as: jumbo frame support, RIF caching, SPT loop prevention and VLAN/priority field preservation are available to Madge Networks' customers. Customers can simply add a translational switching Gigabit port to their existing Smart Ringswitch Plus or Express Select configuration, by installing the module in an available option slot.

## High Speed Translational Switching

All Gigabit interfaces on Layer 3 IP switches rely upon 802.3 network addressing and frame formatting. To minimize session latency and maximize data throughput, Madge Networks has extended its highly efficient 100 Mbps translational switching technology to Gigabit speeds.

Through the Gigabit Uplink Module in the Smart Ringswitch, Madge Networks' customers can simply implement the necessary frame and protocol translation to allow Token Ring data to traverse a Gigabit IP backbone.

# Madge Smart DeskStream™

## Benefits of Smart DeskStream

- Boosts Productivity**  
 Delivering a dedicated 32 Mbps, full-duplex connection to every user and low-latency access to a high speed backbone.
- Reduces Costs**  
 Offering significantly reduced total cost-of-ownership, combined with substantial productivity and ongoing management benefits to ensure maximum service at minimum cost.
- Protects Your Investment**  
 Releases the full potential of your network adapter cards, by overcoming problems of costly and time consuming upgrades, and maximizing your existing investment by quickly and simply integrating your existing network environments.
- Minimizes Disruptions**  
 Eliminates potential for minor faults and utilizes redundant backbone connections to ensure network resilience and minimal disruption.
- Enhances Security**  
 Provision of dedicated connections and features that restrict network access combine to deliver additional security benefits.
- Simplifies Installation**  
 Using Source Route Switching technology to provide simple installation, reduces the potential for compatibility and configuration problems.
- Simplifies Management**  
 Graphical management software that is intuitive and supplied free with Smart DeskStream allows logical access to all advanced features.
- Removes Complexity**  
 By providing a complete workgroup solution in a single device that delivers dedicated, high performance connections to every user.
- Saves Risk**  
 Delivering excellent integration with hubs, simple installation, enhanced resilience and security whilst delivering outstanding performance to cope with future applications.
- Prepares for the Future**  
 A combination of scalability and ample bandwidth to grow alongside you, ensures Smart DeskStream will keep pace with your needs.

The market leading Token Ring desktop switching solution boosts performance whilst protecting investment in your desktop technology. Compatibility with traditional shared hubs makes the Madge Smart DeskStream™ a simple, low-risk solution for enhancing any Token Ring workgroup, delivering high-performance switching at the lowest possible price.

## The Arrival of Desktop Switching

Until the arrival of the Madge Smart DeskStream, Token Ring users only had shared access to a 4 or 16 Mbps ring. The Smart DeskStream has changed this by offering Token Ring desktop switching as a realistic and affordable alternative. Every Smart DeskStream user has a dedicated 32 Mbps full-duplex connection and low-latency access to a high-speed backbone. The Smart DeskStream also offers a range of interconnection technologies that allow the Token Ring workgroup to communicate with networking resources connected by Ethernet or ATM, or to Gigabit through the Madge Smart Ringswitch family.

Increased performance and enhanced network flexibility are not the only advantages offered. The Smart DeskStream also delivers enhanced resilience, improved management, greater scalability and security and protects the investment of existing hub-based workgroups.

## Investment Protection

With its Hub Integration facility, the Madge Smart DeskStream connects to existing hubs, improving the existing hub to backbone communication. This allows Network Managers to introduce Smart DeskStream into their network where required, complementing their existing investment in Token Ring.

## Increased Flexibility

Unlike traditionally shared Token Ring hubs, the Smart DeskStream has a range of interconnectivity options that allow the Network Manager to integrate Ethernet based workgroups, resources and appliances into the Token Ring network. In addition, by concentrating the Smart DeskStream connections into a Smart Ringswitch, the existing Token Ring workgroups can connect to Gigabit IP backbones. This eliminates the need for disruptive and costly reconfiguration of network stations or workgroups in order to access Gigabit services.

## Powerful, Scalable Connectivity

The Smart DeskStream delivers wire-speed bandwidth to every desk, by employing low-latency switching, while the highly-scalable stacking architecture offers simple expansion up to over 200+ user ports. High-speed backbone connectivity is provided by 100 Mbps Token Ring, 155 Mbps ATM, and Ethernet option modules. The Ethernet Integration module provides fast layer-2 translational switching to 10/100 Mbps Ethernet.



Smart DeskStream™

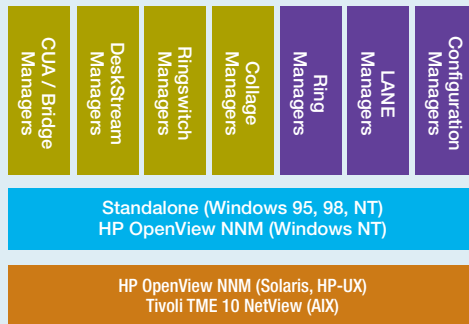
## Intelligent Management with TrueView/32 Enterprise

Madge Networks leads the way in providing powerful and comprehensive management and monitoring tools that make the job of managing a network easier.

All Madge Networks workgroup products are supplied with free SNMP-based graphical management software for Windows. Support is also provided in Madge's TrueView/32 Enterprise network management systems, which runs standalone under Windows 95 or NT, or can be integrated with HP OpenView NNM for Windows NT.

For Unix management environments, TrueView/32 Enterprise for Unix offers support for the Madge Networks' product families under HP OpenView NNM and Tivoli TME 10 NetView.

With networks increasing in complexity and businesses becoming evermore dependent on their reliable operation, TrueView/32 Enterprise is an indispensable tool to help maximize network uptime, reduce support costs, and plan for future expansion.



For more information about Networking Solutions

Email [info@madge.com](mailto:info@madge.com)  
Call your local Madge Networks office  
Visit [www.madge.com](http://www.madge.com)

### World Wide Headquarters

Wexham Springs  
Framewood Road  
Wexham  
Slough SL3 6PJ  
England  
Tel: +44 1753 661000  
Fax: +44 1753 661011

### Americas

**Madge Networks**  
1 State Street Plaza  
12th Floor  
New York, NY 10004  
USA  
Tel: +1 212 709 1112  
Fax: +1 212 709 1002

### Deutschland

**Madge Networks GmbH**  
Martin-Behaim-Str. 19-21  
63263 Neu-Isenburg  
Frankfurt  
Germany  
Tel: +49 6102 7306 0  
Fax: +49 6102 7306 15

[www.madge.com](http://www.madge.com)

## Ordering information

### Smart DeskStream Family

Part Number	Description
58-30	Smart DeskStream 24-port Desktop Switch
58-37	Smart DeskStream Stacking Module
58-34	Smart DeskStream TR Fiber Module
58-35	Smart DeskStream 100 Mbps TR Copper Module
58-36	Smart DeskStream 100 Mbps TR Fibre Module
58-39	Smart DeskStream Ethernet Module
58-38	Smart DeskStream ATM Module

### Smart Ringswitch Family

Part Number	Description
57-61	Smart Ringswitch Plus Chassis
57-62	Smart Ringswitch Switch-3 module
57-77	Smart Ringswitch Secondary power supply unit
58-50	Smart Ringswitch Express Select
57-92	Smart Ringswitch 4-port fibre module
58-24	Smart Ringswitch 8-port copper module
58-45	Smart Ringswitch 8-port fibre module
58-33	Smart Ringswitch 2-port 100 Mbps fibre module
58-42	Smart Ringswitch 8-port 100 Mbps copper module
58-43	Smart Ringswitch 8-port 100 Mbps fibre module
57-94	Smart Ringswitch ATM - MMF module
58-44	Smart Ringswitch 2-port Ethernet module
58-41	Smart Ringswitch Third Layer Service module
58-49	Smart Ringswitch Gigabit Uplink module
84-27	Smart Ringswitch RMON License
87-11	Smart Ringswitch Software CD

Madge Networks reserves the right to change specifications without notice.

Madge, Madge Networks, the Madge logo, Smart Ringswitch, TrueView/32, Smart DeskStream and Active Broadcast Control are trademarks and in some jurisdictions may be registered trademarks of Madge Networks or its affiliated companies. Other trademarks appearing in this document are the property of their respective owners.

© Copyright 2002 Madge Networks  
All Rights Reserved