



## DATA SHEET

# CISCO MGX 8830 MULTISERVICE SWITCH

The Cisco MGX<sup>®</sup> 8830 Advanced ATM Multiservice Switch extends a full suite of narrowband interfaces and broadband trunking to remote sites with low density and high service mix requirements, using PNNI and MPLS for flexibility network and service evolutions.

Figure 1

Cisco MGX 8830 Multiservice Switch



## KEY FEATURES

- Processor, switch fabric and broadband interfaces combined in as a single module
- ATM Modular Optics
- Full-featured, narrowband ATM for managed data, voice, and video services
- Compact form factor
- Private Network-to-Network Interface (PNNI) routing
- Industry's highest network availability
- Innovative architecture for supporting multiple control planes and dynamic allocation of services mix

## KEY APPLICATIONS

- Frame Relay
- Frame Relay-to-ATM network interworking
- Frame Relay-to-ATM service interworking
- IP-enabled Frame Relay
- ATM
- IP virtual private networks (IP VPNs)
- VoIP, VoATM
- DSL aggregation
- Circuit emulation
- MPLS PE

## TECHNICAL SPECIFICATIONS

Seven double-height function module slots can also be converted to single-height slots with the addition of mid-rail dividers while the unit is in service:

- Two slots reserved for processor switch modules (PXM)
- One slot reserved for two service-resource modules (SRMs)
- Four slots may be used double height or as eight single-height slots for service modules

### Switching Fabric

- 1.2-Gbps shared-memory fabric (PXM-1E processor switching module)

### Network Interfaces

- OC-3c/STM-1
- T3
- E3
- Channelized T3 (down to DS0 for Frame and DS1 for ATM)
- Channelized STM-1 (down to DS0 for Frame and DS1 for ATM)
- N x T1/E1
- T1/E1
- Channelized T1 (down to DS0)
- Channelized E1
- High-speed serial interface (HSSI), X.21, V.35

### Optional Redundancy

The control processor, switching fabric, critical backplane signals, power supplies, and power modules can be configured for 100 percent system redundancy.

### Node Synchronization

- Internal Stratum-3 clocking
- External T1/E1 building integration timing supply (BITS) source
- External source received inband over the network
- Synchronization to software-programmable primary and secondary sources, with automatic switchover

### Network Management

Cisco MGX 8830 is managed by Cisco WAN Manager using Simple Network Management Protocol (SNMP). Cisco WAN Manager provides telecommunications network element management functions, as well as standard network management functions, such as connections management and network topology graphical user interface (GUI).

The Cisco WAN Manager Service Agent can also be used to provide a northbound SNMP Application Program Interface (SNMP API) for seamless integrations with operations support systems (OSSs) and third-party network- and service-management systems. The Cisco WAN Manager Service Agent enables flow-through provisioning and fault-management capabilities that service providers demand.

## Physical Specifications

- Dimensions: (H x W x D): 12.25 in. (31.1 cm) excluding optional AC power tray; 14.00 in. (35.6 cm) with optional AC power tray x 17.72 in. (45.0 cm) excluding rack-mounting brackets x 23.5 in. (59.7 cm) excluding cable management
- Standalone or rack-mountable in 19 in. (48.2 cm) and 23 in. (58.4 cm) EIA/REMA and European Telecommunications Standards Institute (ETSI) racks

## Electrical Specifications

- AC Power
  - Input voltage range: 100-120 and 200-240 VAC
  - Maximum input current: 12A at 100 VAC, 7A at 200 VAC
  - Maximum power: 1200W
  - Frequency: 50-60 Hz
- DC power
  - Input voltage range: 42-56 VDC
  - Maximum input current: 30A
  - Maximum power: 1050W

## Electromagnetic Compatibility

- EN55022 (CISPR22)
- CFR 47 Part 15 (FCC)
- AS/NZS 3548 (Australia/New Zealand)
- ETS 300 386-2 (EN300 386-2)
- EN 61000-4-2 (IEC-61000-4-2)
- EN 61000-4-3 (IEC-61000-4-3)
- EN 61000-4-4 (IEC-61000-4-4)
- EN 61000-4-5 (IEC-61000-4-5)

## Safety and Standards Compliance

- Safety compliance
  - UL 1950, CSA C22.2 No. 950, EN60950, AS/NZS 3260, IEC 60950
  - IEC 60825-1, EN60825-1
- Standards compliance
  - Telecom
  - FCC 47 CFR Part 68
  - Industry Canada CS-03
  - ITU-T G.703
  - ANSI T1.102
  - ANSI T1.107
  - ANSI T1.105
  - ITU-T G.957

**Corporate Headquarters**

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 526-4100

**European Headquarters**

Cisco Systems International  
BV  
Haarlerbergpark  
Haarlerbergweg 13-19  
1101 CH Amsterdam  
The Netherlands  
www-europe.cisco.com  
Tel: 31 0 20 357 1000  
Fax: 31 0 20 357 1100

**Americas Headquarters**

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-7660  
Fax: 408 527-0883

**Asia Pacific Headquarters**

Cisco Systems, Inc.  
168 Robinson Road  
#28-01 Capital Tower  
Singapore 068912  
www.cisco.com  
Tel: +65 6317 7777  
Fax: +65 6317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the Cisco Web site at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Cyprus • Czech Republic • Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel • Italy • Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal • Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

Copyright © 2004 Cisco Systems, Inc. All rights reserved. CCIP, CCSP, the Cisco *Powered* Network mark, Cisco Unity, Follow Me Browsing, FormShare, and StackWise are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn, and iQuick Study are service marks of Cisco Systems, Inc.; and Aironet, ASIST, BPX, Catalyst, CCDA, CCDP, CCIE, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, the Cisco IOS logo, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Empowering the Internet Generation, Enterprise/Solver, EtherChannel, EtherSwitch, Fast Step, GigaStack, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, LightStream, Linksys, MGX, MICA, the Networkers logo, Networking Academy, Network Registrar, *Packet*, PIX, Post-Routing, Pre-Routing, RateMUX, Registrar, ScriptShare, SlideCast, SMARTnet, StrataView Plus, Stratm, SwitchProbe, TeleRouter, The Fastest Way to Increase Your Internet Quotient, TransPath, and VCO are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0402R)

204123.1\_ETMG\_JC\_09.04

