

Riverstone RS 38000 - Metro Core Router

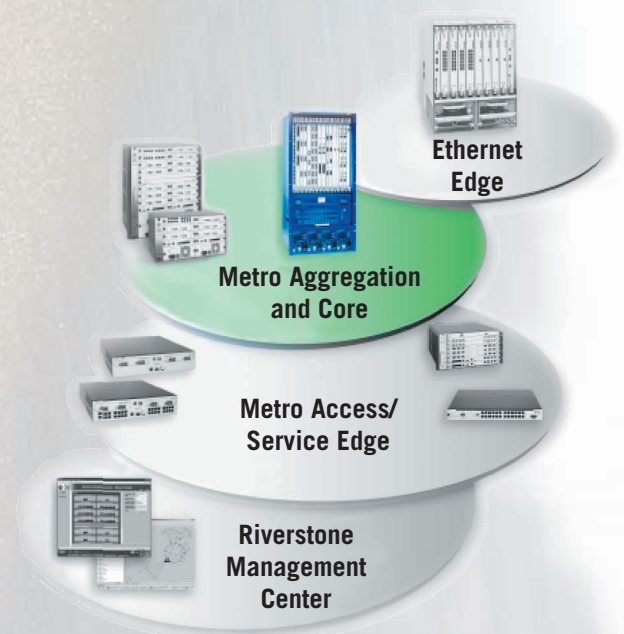
Metro Core Router: RS 38000

The RS 38000 is a high density metro core router that delivers Ethernet/MPLS services over a wide variety of network technologies. It sits in the core of metro service delivery networks enabling VPLS and bridging between Ethernet and ATM/SONET/SDH/TDM infrastructures. By enabling VPLS, the RS 38000 allows service providers to offer converged business services like VPNs and Video conferencing and residential triple play services like VoIP, Video on demand, Broadcast television and Internet access. By supporting interworking between various technologies, the RS 38000 plays a critical role in the evolution of service provider networks from existing technologies to Ethernet. The combination of the RS 38000 with the RS 8600 and the Riverstone 15008, gives service providers a strong portfolio of products to build their metro core with.

With its uncompromising reliability including full hardware redundancy and support for Riverstone's Hitless Protection System, the RS 38000 is a perfect fit for service creation in high-availability networks. In addition, its NEBS/ETSI compliance assures stellar performance even in demanding environments.

KEY APPLICATIONS

- Create or aggregate Virtual Private LAN Services and Virtual Private Wire Services
- Create cost-effective Ethernet metro core or regional transport networks between access rings, POPs, and data centers
- Aggregate Ethernet traffic from metro networks, and support Packet-Over-SONET/SDH uplinks to the Internet core in a single, carrier-class platform
- Act as the gateway between metro Ethernet networks and ATM networks to provide similar converged services across both technologies



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CUSTOMER CHALLENGES AND SOLUTIONS	
Challenge	Solution
Enable high-density traffic aggregation across many networks	With GigE, TDM, and Packet Over SONET/SDH interfaces available, the RS 38000 delivers massive port density and high-performance routing and switching
Deliver services with maximum network uptime	Redundant processor, switch fabric, and power supply, combined with standards-based VRRP and self-healing route paths (OSPF multi-path, MLPPP, MPLS Fast Reroute and Port Trunking) offer NEBS/ETSI compliance and multiple levels of redundancy
Rapidly deploy Ethernet services to fulfill rising demand	Deploy the RS 38000 to interface between the Ethernet and ATM networks. With its advanced support for Ethernet-ATM interoperability, the RS 38000 can easily provide Ethernet services over existing ATM networks. This allows a rapid rollout of Ethernet services while improving return from existing networks.

Platform Features:

Service Enablers

- IP routing - OSPF, IS-IS, BGP
- LSR and LER MPLS support in hardware
- RSVP-TE and LDP label distribution and signaling
- MPLS traffic engineering
- Multicast
- Security (ACLs, L2 filters)
- Hardware-based QoS - rate limiting, rate shaping, WFQ, SPQ
- Diffserv
- Jumbo Frame support
- VLAN Translation

System, Software and Hardware Fault Tolerance

- Redundant power supplies, control modules
- Redundant switch fabrics
- Spanning Tree Protocol, Rapid STP, Per VLAN STP
- VRRP
- Link Aggregation, Smarttrunking
- Loop detection
- BGP and OSPF restart
- Hitless Protection System for software upgrades and control module failovers

Extensive Management

- SNMP
- RMON / RMON 2
- SSH v1 and v2
- RADIUS
- TACACS+
- RS-232 (out-of-band management)
- Command Line Interface (CLI)
- Riverstone Management Center

Ordering Information

Part No.

R38-CHS-RSF
R32-PAC
R32-PDC
R32-FAN
R38-SWF
R38-CM4-256
SYS-OS-32
SYS-PCM32

Product Description

RS 38000 Base Chassis with Redundant Switch Fabric Modules
RS 38000 AC Power Supply (Minimum 2 required, 3 or 4 required for redundancy)
RS 38000 DC Power Supply (Minimum 1 required, 2 required for redundancy)
RS 38000 Fan Tray Assembly (spare)
RS 38000 Switch Fabric Module (spare)
RS 38000 Control Module 4 with 256 MB of memory
License for RapidOS, includes PCMCIA Flash Card
PCMCIA Flash Card. Order with Redundant Control Module

All products above are available with a light encryption option, to comply with US export laws. Please contact Riverstone Networks for details. For availability and complete ordering information, including specific modules, contact your Riverstone Representative at (408) 878-6500. You may also visit our website at www.riverstonenet.com

Interfaces

- 24 port and 32 port 10/100-TX Ethernet
- 4 port and 8 port Gigabit Ethernet
- 4 port MPLS-enabled Gigabit Ethernet
- 4 port MPLS-enabled Packet over SONET/SDH OC3c and OC12c
- 1 port MPLS-enabled Packet over SONET/SDH OC48c
- 4 port Channelized DS3
- 4 port ATM DS3/E3/OC3
- 4 port ATM OC12

Capacity and Performance

- Up to 4,096 VLANs
- Up to 250,000 routes
- Up to 20,000 security/access control filters
- Up to 16,000,000 Layer 2 MAC addresses
- Up to 170 Gbps non-blocking switching fabric
- Up to 83 million packets-per-second routing throughput
- MTBF (predicted) > 200,000 hours

Standards Support

- For a complete list of standards supported, including RFCs and MIBs, please refer to http://www.riverstonenet.com/rs_stds.shtml

Physical Specifications:

Dimensions:	Height: 35 in. / 88.9 cm
	Width: 17.25 in. / 43.82 cm
	Depth: 19 in. / 48.26 cm
Weight :	125 lbs / 56.68 kg

Environmental Specifications:

Altitude:	10000 ft (3000 m) maximum
Operating Temperature:	+0° to +40°C (32° to 104°F)
Non-Op. Temperature:	-40° to +70°C (-40° to 158°F)
Operating Humidity:	10 to 90% (non-condensing)
Non-Op. Humidity:	5 to 95% maximum (non-condensing)
Shock and Vibration:	Telcordia GR63

Power Specifications:

AC Power	Current: 12-24 A
	Voltage: 100-240 V
	Frequency: 50-60 Hz
DC Power	Current: 50 A
	Voltage: -48 to -60 V

Agency Standards and Specifications

Safety: Meets the requirements of UL1950, CSA C22.2 No. 950, EN60950, IEC950 and 73/23/EEC.

Electromagnetic Compatibility: Compliant with the requirements of FCC Part 15, CSA C108.8, EN55022, VCCI, EN50082-1 and 89/336/EEC.

NEBS: Level 3 Compliant

ETSI: EN 300 386, EN 300 019, ETC 300 753 Compliant



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