Lucent Ethernet Routers 1100 and 3100/3200
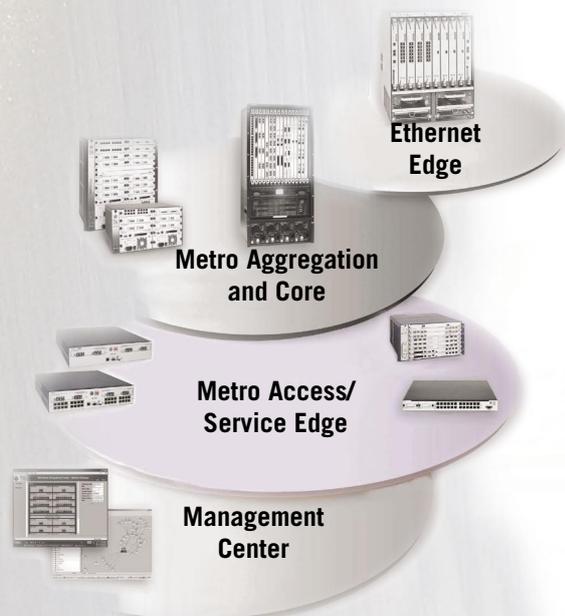### (formerly Riverstone RS 1100, 3100 & 3200)

The Lucent Ethernet Routers 1100 and 3100/3200 extend Ethernet/IP service delivery to the metro access, feature MPLS, high-performance routing and switching, and dynamic on-demand bandwidth provisioning. At the same time, their combination of a compact form factor and high port density saves operational costs and improves service provider margins.

The key to the product family's popularity is its unique ability to deliver Ethernet/IP services over Ethernet, TDM, ATM, CWDM or SONET/SDH networks. The 3100 features two flexible linecard slots and 32 10/100BaseTX fixed RJ-45 ports. The 3200 features two flexible linecard slots and 32 SFP based 100BaseFX ports. The 1100 features two flexible linecard slots for lower density applications.

KEY APPLICATIONS
- Extend Ethernet/IP/MPLS services to the metro edge
- Create VPLS, E-line & E-LAN services
- Enable Fiber-To-The-Premise triple-play services (video, voice and data)
- Deliver Ethernet services over copper or optical infrastructure - Gigabit and 10/100 Ethernet, T1/E1, T3/E3, ATM, CWDM and Packet-over-SONET/SDH

Ethernet Edge

Metro Aggregation and Core

Metro Access/ Service Edge

Management Center

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Lucent Ethernet Routers 1100 and 3100/3200

CUSTOMER CHALLENGES AND SOLUTIONS	
Challenge	**Solution**
Rapidly establish Ethernet services over existing infrastructure	Broad complement of TDM/ATM/SONET/SDH interfaces combined with full function routing and switching
Offer profitable tiered services without compromising performance	Implement hardware-based traffic classification, filtering and accounting, with advanced Quality of Service (rate limiting and rate shaping) Enable MPLS to offer scalable services using VPLS
Deploy Fiber based Ethernet access solutions	Offer enhanced services over 100BaseFX or 100BaseBX technologies with an optical last mile

Platform Features:

Service Enablers
- IP routing - OSPF, IS-IS, BGP
- LER and LSR MPLS support in hardware
- RSVP-TE and LDP label distribution and signaling
- MPLS traffic engineering
- Ethernet Pseudowire (formerly Martini Draft)
- VPLS and H-VPLS
- Layer 3 BGP VPNs
- Multicast (PIM, DVMRP & IGMP snooping)
- Security (ACLs, L2 filters)
- Hardware-based QoS - rate limiting, rate shaping, WFQ, SPQ
- Diffserv
- Jumbo Frame support
- VLAN Translation
- Hierarchical service bundles with the Advanced Services Module
- DHCP Relay and Client

System, Software and Hardware Fault Tolerance
- Redundant power supplies
- Spanning Tree Protocol, Rapid STP, Per VLAN STP
- VRRP
- Link Aggregation, SmartTrunking
- Loop detection
- BGP and OSPF restart
- BFD

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

Interfaces
- 16 port 10/100 Ethernet (TX , FX and BX)
- 2 port Advanced Services Module - Gigabit Ethernet
- 2 port Gigabit Ethernet
- 2 port MPLS-enabled Gigabit Ethernet
- 2 port MPLS-enabled Packet over SONET/SDH OC3c
- 4 port T1/E1
- 2 port DS3/E3
- 2 port ATM DS3/E3/OC3

Capacity and Performance
- Up to 4,096 VLANs
- Up to 130,000 routes
- Up to 20,000 security/access control filters
- Up to 256,000 Layer 2 MAC addresses
- MTBF > 200,000 hrs (predicted)
- **1100:**
  12 Gbps non-blocking switching fabric
  Up to 5.9 million packets per second routing throughput
- **3100/3200:**
  20 Gbps non-blocking switching fabric
  Up to 10.7 million packets per second routing throughput

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:	3.4 in. / 8.7 cm (2 RU)
	Width:	17 in. / 43.2 cm
	Depth:	18.5 in. / 47 cm
Weight :		20 lbs / 9.1 kg

Environmental Specifications:

Altitude:	4000m @ 30°C
Operating Temperature:	0° to +40°C (32° to 104°F)
Non-Op. Tempperature:	-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		DC Power	
Input Current:	1.5 - 3.0 A	Input Current:	8 A
Input Voltage:	100-240 V	Input Voltage:	-48 to -60 V
Frequency:	50-60 Hz		

Agency Standards and Specifications

Safety: UL60950, CAN/CSA-C22.2 No. 60950, EN60950, IEC950, and 72/73/EEC

Electromagnetic Compatibility: FCC Part 15, CSA C108.8, EN55022, VCCI, EN55024 and 89/336/EEC

Certifications:
NEBS: Level 3, GR-1089, GR-63,
ETSI: ETSI EN 300-386, EN 300-109, ETS 300-753

Ordering Information

Part No.	Product Description
G11-B256	1100 Base Unit with 256 MB memory and dual AC power supplies. Includes RapidOS
G11-B256-DC	1100 Base Unit with 256 MB memory and dual DC power supplies. Includes RapidOS
G31-B256	31
G31-B256-DC	31
G32-B256	3200 B
G32-B256-DC	3200 B

For availability and complete ordering information, including specific modules, please contact your Lucent Technologies Sales Representative or visit our website at www.lucent.com.

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