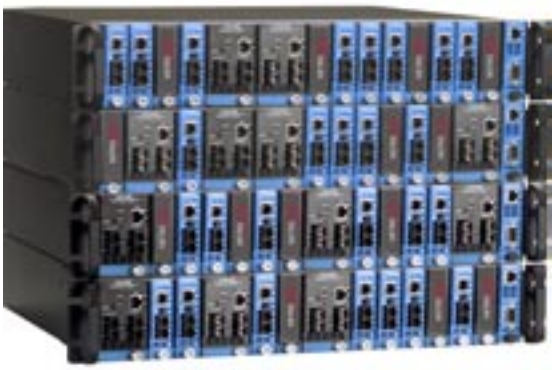
METRObility optical systems

Simply Brilliant Optical Ethernet

Radiance R5000
Central Service Platform

Managed fiber optic connectivity at the metropolitan area network (MAN) central office



- *Remote, simple bandwidth provisioning*
- *Remotely controlled loopback*
- *Stackable up to 109 remote sites with one IP address*
- *NEBS Level 3 certified*
- *Real-time analog and digital statistics to enable QoL monitoring*

Radiance Optical Ethernet System

The Radiance R5000 Central Service Platform provides managed fiber optic connectivity for mission-critical IP network applications. The R5000 NEBS Level 3 certified platform delivers managed, high-availability solutions at the network edge for bandwidth provisioning, remote testing, distance extension, and copper-to-fiber or fiber-to-fiber connectivity for Ethernet, Fast Ethernet, Gigabit Ethernet, T1/E1 and SONET networks.

Installed at the central office or the point of presence, the Radiance R5000 Central Service Platform interfaces to the switch or router at the service provider's metropolitan area network and to an R1000 or R400 at the customer premise to provide extensive remote WAN management, fiber connectivity and access.

Flexibility and Scalability Reduce Cost

The R5000 supports our complete line of Access Line Cards, Interface Line Cards and Management Line Cards.

Radiance Access Line Cards provide the highest level of manageability – including dynamic bandwidth provisioning, remote loopback testing, and real-time analog and RMON statistics – without consuming any valuable user bandwidth.

Radiance Interface Line Cards offer versatile speed, media, distance, and path redundancy options to cost-effectively distribute fiber optic connections in your network.

Superior SNMP Management

The Management Card reports individual line card status to NetBeacon SNMP-based element and service provisioning management system.

The Management Card gathers real-time data to provide critical, up-to-the-minute QoL information on the fiber link including optical receive power level measurement, optical transmit power level measurement, and chassis voltage and temperature measurements.

For web-based management using a standard web browser, the WebBeacon™ kernel is embedded into the management card.

The Chassis Stacking Line Card enables up 7 chassis and 109 remote sites (using Access Line Cards) to be managed under a singe IP address. This ability provides visibility and remote software control over the entire stack, along with notification of a problem or failure to the network administrator. Three (3) cards are required in chained configuration for stacks greater than four chassis.

System Configuration

The R5000 Central Service Platform is available as a 19" or 23" rack-mountable 2U platform with rear-loading, redundant, load-sharing, hot-swap AC or DC power, management line cards, and 16 slots for connectivity.

The Metrobility® Difference

Remote WAN management
- QoL information
- Remotely controlled loopback
- Bandwidth provisioning
- Optical power levels

NetBeacon®Java-based GUI provides proactive management including automatic pager and email notification of alarm conditions

Remote monitoring via the web using the WebBeacon management kernel

NEBS Level 3 certified when configured with the DC option

Product Highlights

Copper-to-fiber and fiber-to-fiber connectivity

Hot-swap, load-sharing AC or DC power

Strict standards compliance ensures compatibility with other vendors' equipment for flexible connectivity

Central Service Platform Features

- 17-slot unit with an optional redundant power supply for continuous uptime
- 19" or 23" 2U rackmount or standalone
- Statistical information can be accessed using NetBeacon software or collected through any SNMP manager with the optional management line card
- Supports any combination of single-slot interface line cards
- Supports any combination of hot-swap, plug-and-play interface line cards for non-stop operation and high MTBF

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Central Service Platform

R5000 Platform

R5000-17HS[1]	17-slot platform two bays for optional AC/DC power supplies
ACPS-17HS	AC Power Supply
DCPS-17HS	DC Power Supply

NetBeacon Element Management System

NetBeacon	CD with Management Software for Windows and UNIX versions and Database Plug-in
R502-M	Management Line Card, Dual Port
R104-11	Chassis Stacking Line Card

Specifications

Dimensions	3.5"H x 17.0"W x 15.0"L 8.9cmH x 43.2cmW x 31.1cmL
Weight	17.0 lbs (7.0 kg)
AC Power	100-120/200-240V
DC Power	36V-72V

Environmental

Operating Temperature	0°C to 50°C
Operating Humidity	5% to 95% non-condensing
Storage Temperature	-30°C to 70°C

Regulatory

Compliance	IEEE 802.3/IEEE 802.3u/IEEE 802.3z NEBS Level 3certified[1]
Safety and EMC	UL, CSA, EN60950 (TUV), FCC Part 15, Class A, EN55022 Class A (emissions), EN50082-1 (immunity), IEC 825-1 Classification, Class 1 Laser Product, DOC Class A (emissions)

[1]Only DC options are NEBS certified

Metrobility Optical Systems is an innovative next generation optical networking company whose focus is on delivering optical access platforms and to harness the power of Ethernet and fiber optics to deliver superior network edge access, connectivity and wavelength multiplexing solutions.

Access Line Card Features

100Mbps Access Line Cards
RJ-45 to singlemode and multimode - SC and ST
Bi-directional wavelength division multiplexing (BWDM) option
2km, 15km, 40km, 100km

- **Quality of Equipment Monitoring**
  Monitors both ends of optical link
  Monitors temperature and logic voltage level in each Access Line Card
- **Quality of Line Monitoring**
  Remote loopback through optical link
  Far End Fault
  Uses no user bandwidth and requires no IP address or SNMP stack
- **Quality of Optical Amplitude**
  Real time measurement of the receive and transmit levels of the optical transceivers
  Integral power meter eliminates disabling link for testing and enables proactive maintenance
- **Dynamic bandwidth provisioning in 1Mpbs increments**
- **Full signal restoration** - with low bit delay - allows for maximum segment length

Interface Line Card Features

10Mbps, 100Mbps and 1Gbps
Redundant 10Mbps, 100Mbps and 1Gbps
OC-3/STM-1 and OC-12/STM-4
T1 and E1 Interface Line Cards
T3 and E3 Interface Line Cards

- Supported distances up to 100km
- Copper-to-singlemode or multimode
- Singlemode-to-multimode options
- Single strand (BWDM) options
- Full signal restoration - with low bit delay - allows for maximum segment length
- All fiber optic ports support half-duplex and full-duplex mode and Link Loss Carry Forward (LLCF) enable/disable switch (except BNC module 7111-12-75)
- All twisted pair ports have built-in MDI-II/MDI-X switch to deliver crossover functionality without the need for crossover cables
- Full complement of LEDs per module, including receive activity/power/link

MADE in USA

A6285 ISO 9001

Metrobility Optical Systems,Inc.