

# Radiance R200, R400 and R1000 Premise Service Platform

*WAN-Managed Access (CPE)  
for Optical Ethernet Metropolitan Area Networks*



- Remotely controlled loopbacks for troubleshooting
- Remote bandwidth provisioning
- Real-time collection of analog and digital Quality of Line (QoL) information
- Minimizes IP address usage
- Simple to install and provision
- NEBS Level 3 certified

## Deploying Optical Ethernet Services

The carrier-class **Radiance Premise Service Platforms** are specifically designed to insure remotely managed isolation between the service provider's metropolitan area network (MAN) and the customer's switches and routers.

The Radiance Premise Service Platform satisfies service provider requirements for remote wide area network (WAN) management and bandwidth provisioning which are essential elements for carrier-class optical Ethernet access. With these Radiance models the service provider is provided robust management and troubleshooting capabilities similar to those used for their leased line networks, but at much less cost per megabit of bandwidth.

Designed for simple installation and provisioning, the Radiance Premise Service Platform provides extensive SNMP manageability for the first-mile fiber connection without requiring an IP address or SNMP stack at the customer premise. Remotely controlled loopbacks significantly reduce troubleshooting time and costs to insure high network availability.

### Patent-Pending Remote WAN Management

The Premise Service Platform offers an innovative solution to the management access problem and enables the following functions:

- Remote troubleshooting with full loopback
- Real-time collection of Quality of Line (QoL) statistics for determining the health and performance of the link
- Real-time collection of optical power transmit and receive levels, chassis temperature and power
- "Point-and-click" bandwidth provisioning.

The Premise Service Platform supports Radiance Access Line Cards and Interface Line Cards to accommodate not only service provisioning but also media, speed, distance, and redundant path connectivity requirements.

**Radiance Access Line Cards** give the service provider at the central office real-time management of each link – including remote loopback testing, and analog statistics for platform power, temperature and optical laser levels, and dynamic bandwidth provisioning, – without consuming any valuable user bandwidth.

**Radiance Interface Line Cards** offer versatile speed, media, distance, and link protection and restoration options to cost-effectively distribute fiber optic connections.

### Platform Options

The R1000 Premise Service Platform is a 1U rack-mounted unit with dual, load-sharing AC or DC power, and accommodates two line cards.

The R400 Premise Service Platform is a Class B certified standalone unit which, like the R1000, accommodates two line cards. The R400 is available with external single or dual AC power.

The R200 Premise Service Platform is a Class B certified standalone unit which accommodates a single line card. The R200 is equipped with an internal AC or DC power supply. Management of the R200 can be accomplished remotely from the central office by utilizing an Access Line Card at both ends of the link and Metrobility's NetBeacon® Element Manager.

By utilizing special brackets, the R200 and R400 devices are able to be mounted to a wall or in a rack.

## The Metrobility® Difference

Remote WAN management

- QoL information
- Remotely controlled loopback
- Bandwidth provisioning
- Optical power levels

Strict standards compliance ensures interoperability for flexible connectivity

NEBS Level 3 certified when configured with the R1000 DC option



## Product Highlights

Converts between twisted pair and fiber optic network segments at 10Mbps, 100Mbps and 1000Mbps as well as fiber to fiber

SX to LX OC-12/STM-1 and OC-12/STM-4

Mix and match interface line cards for affordable fiber optic connections

Optional redundant load-sharing power supply for continuous network operation

## Premise Service Platform Features

- Single slot unit (R200) with an internal AC or DC power supply for continuous uptime
- Two-slot unit (R400) with an optional second power supply for continuous uptime
- Two-slot 19" 1U rackmount (R1000) with dual AC or DC power options
- Supports any combination of single-slot interface line cards
- Supports any combination of hot-swap, plug-and-play interface or access line cards for non-stop operation and high MTBF
- NEBS Level 3 certification awarded on the R1000 DC option

## Models

### R200 Platform

R200-AC	Single slot platform with single internal AC power supply
R200-DC	Single slot platform with single internal DC power supply

### R400 Platform

R400-2HS-1A	2-slot platform with single external AC power supply
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### R1000 Platform

R1000-AAF	2-slot platform with two front-facing AC power supplies
R1000-AAR	2-slot platform with two rear-facing AC power supplies
R1000-DDF	2-slot platform with two front-facing DC power supplies
R1000-DDR	2-slot platform with two rear-facing DC power supplies

### Accessories:

R200-WM-1	Wall mount bracket for the R200 and R400 Chassis
R200-RM-1A	Single Unit 19" rack mount kit for the R200 and R400 Chassis
R200-RM-2A	Double Unit 19" rack mount kit for the R200 and R400 Chassis
R200-RM-EXT23	23" extension kit for R200-RM-xA kits

All models in blue are NEBS Level 3 certified.

## Supported Line Cards

### 100Mbps Access Line Cards

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

### 10Mbps and 100Mbps Interface Line Cards

RJ-45 to singlemode and multimode - SC and ST  
Multimode to singlemode  
Redundant link option (10Mbps only)  
10/100 auto-negotiation  
BWDM option  
2km, 15km, 40km, 100km

### 1000Mbps Interface Line Cards

Copper to fiber  
Singlemode and Multimode  
Singlemode to Singlemode  
Multimode to Multimode  
10km, 25km, 40km, and 70km

### OC-3/STM-1 and OC-12/STM-4 Interface Line Cards

Multimode to Singlemode - SC  
Up to 40km

### T1 and E1 Interface Line Cards

RJ-48 to Multimode and Singlemode - SC  
BWDM option  
Up to 100km

### T3 and E3 Interface Line Cards

Dual BCN to Multimode to Singlemode - SC  
BWDM option  
Up to 100km

## Specifications

### R200

Dimensions	8.625"L x 5.5"W x 1.625"H 21.9cmL x 14cmW x 4.1cmH
Weight	1.18 lb; 0.54 kg
Power	100-250V AC; 48V DC (SELV)

### R400

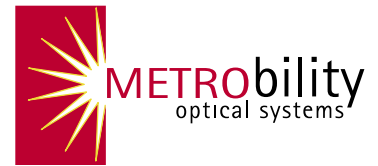
Dimensions	8.625"L x 5.5"W x 1.625"H 21.9cmL x 14cmW x 4.1cmH
Weight	2 lbs (0.9 kg)
Power	90-264V AC; 50/60Hz

### R1000

Dimensions	10.0"L x 17.0"W x 1.72"H 25.4cmL x 43.18cmW x 4.3cmH
Weight	9.5 lbs (3.5 kg)
Power	100-240V AC; 48V DC

## Environmental Specifications

Oper. Temp.	0°C to 50°C
Oper. Humidity	5% to 95% non-condensing
Storage Temp.	-25°C to 70°C
Compliance	IEEE 802.3/IEEE 802.3u
Safety	UL, CE, CSA, EN60950 CB (R200 only), R200 and R400: FCC Part 15, EN55022 and ICES-003 Class B EN55024: 1998 R1000: FCC Part 15, VCCI, EN55022 and ICES-003 Class A EN55024: 1998 NEBS Level 3 certification (DC only)
EMC	



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**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.**

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