



PRODUCT DATA

Radio Extension Service (RES)<sup>TM</sup>

**RED-M's RADIO EXTENSION SERVICE (RES) SAVES YOU MONEY - IT IS A COMPARABLE YET SUPERIOR SOLUTION TO FIBRE-BASED LES/SHDS BUT WITH UP TO 60% LOWER COST OF OWNERSHIP**



LAN EXTENSION SERVICES (LES), (OR SHORT HAUL DATA SERVICES [SHDS] AS THEY ARE ALSO KNOWN) ARE DEDICATED, HIGH SPEED, POINT-TO-POINT DATA CIRCUITS THAT PROVIDE FAST, SEAMLESS CONNECTIONS BETWEEN AN ORGANISATION'S SITES WITHIN A METROPOLITAN AREA. USED TO LINK LOCAL AREA NETWORKS, LES ENABLES QUICK AND EASY SHARING OF INFORMATION. RED-M NOW OFFERS A RADIO EXTENSION SERVICE (RES) THAT IS EQUIVALENT IN DATA THROUGHPUT YET SIGNIFICANTLY MORE FLEXIBLE & COST-EFFECTIVE.

**LES COSTS INCREASING**

IT, network and telecomms managers in enterprises and local authorities have long recognised the value of LES as these Ethernet-based services have provided one of the most economical ways to deliver the high bandwidth connections required for LAN to LAN interconnect. LES is also used for high speed links to disaster recovery sites.

However the price of some commonly used fibre-based circuits is increasing dramatically in the near future. BT Openreach has announced that the annual rental price for the wholesale costs of some services (WES/ WEES10 circuits) will increase by up to 80% between January 2007 and January 2008. Although transitory pricing arrangements will be in place for existing services, all LES resellers will pass on the price increases to end users sooner rather than later.

**THE RED-M ALTERNATIVE**

Apart from the impact on an organisation's 2007-08 expenditure, such a massive price rise means some fibre-based LES potentially becomes uneconomic. To address these problems, Red-M has introduced its Radio Extension Service<sup>TM</sup>, or RES<sup>TM</sup>.

Red-M's RES provides all of the features and functionality which you would expect from a comparable fibre-based LES solution, but with potential savings of up to 60% on the total cost of ownership, plus a more flexible range of throughput rates from just 2 Mbps to over 1000 Mbps. RES is permanently connected and available 24 hours a day, 365 days per year.

High speed radio technology is used to provide this more economic alternative to fibre-based circuits, as well as a much faster installation time. Using its close links to Ofcom, Red-M handles all of the necessary radio licensing issues.

RES provides the necessary Quality of Service to carry data simultaneously with delay and jitter sensitive services such as VoIP & video. It is suitable for all organisations with sites in a metropolitan area needing high capacity Ethernet-based data links to connect these sites, and also supports timing critical circuits such as an E1 for backhaul or telephony.

Red-M can cut your network free from the incumbent, inflexible - and now costly - fibre network.

**FINANCIAL OPTIONS**

As with fibre-based LES, the costs for Red-M's RES will depend on the bandwidth required and the number of end-points in the network. Also similarly to a fibre-based service, and to ensure ongoing peace-of-mind, Red-M provides its service on a managed basis, which is structured via an initial installation charge and low ongoing rental, with discounts available for commitments to 3- and 5- year terms.

## A RANGE OF THROUGHPUT OPTIONS

**RES 10** interconnects two 10 Mbps Ethernet LANs but can also be configured to operate at speeds from 2 Mbps up to 10 Mbps.

**RES 100** is used to link two 100 Mbps Fast Ethernet LANs, but also has the flexible option to run at almost any speed from 10 Mbps up to 100 Mbps.

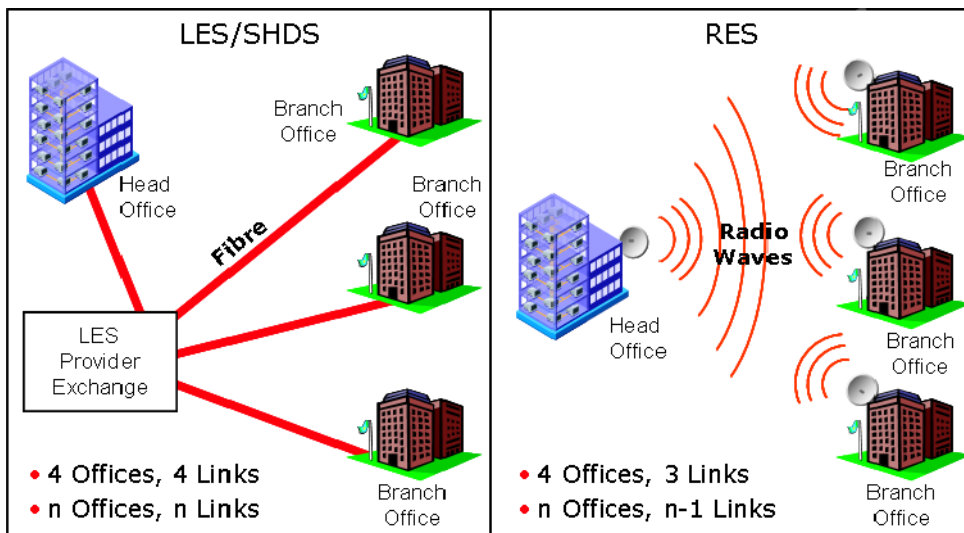
**RES+** is available for linking sites where the throughput required is higher than 100 Mbps. The key difference over competing fixed-speed services such as LES 1000 is that RES+ can be installed in flexible increments of 150 Mbps, from 100 Mbps upwards. This means that you only pay for what throughput you need, when you need it. RES+ is fully upgradable and modular, allowing you to add - or reduce - as and when required.

All rates are subject to suitable radio conditions. Throughput will be improved for the same cost at lower distances.

## LINK AVAILABILITY & RESILIENCE

RES is a high speed, permanently connected, point-to-point data circuit that is available 24 hours a day, 365 days a year. Red-M can design for availability of each circuit of 99.999%.

RES offers an improved level of service to LES as there is no radio equivalent to a 'duct failure' that can take out both links and lead to lengthy repair delays. Duct failures can typically take five days to repair during which time the data circuit is unavailable.



RES offers a more cost-effective solution by only needing N-1 links to link N sites.

## CONNECTING MULTIPLE SITES

Point-to-point and point-to-multipoint (hub and spoke) RES deployments are both available. Fibre-based LES deployments use the local BT exchange as the 'hub', so 'n' fibre LES links are required to connect 'n' offices. RES links typically use your main office as the hub, therefore 'n-1' links are required to connect 'n' offices, again improving the cost-effectiveness of Red-M's solution.

## QUICK AND EASY INSTALLATION

Installation is typically within 4 weeks or less of order. When Red-M accepts your order, it is on the basis that the preliminary data checks have shown that there is an acceptable line of sight. This can only be confirmed by site survey, which is typically conducted on the day of installation. In the unlikely event that there is no acceptable line of sight and the RES circuit cannot be installed, you will not incur any charges.

## HIGH SECURITY

RES links are as secure as the existing wired LAN with AES encryption.

## MAXIMUM DISTANCES

Ranges of up to 25 km can be provided, where radio conditions allow. Although a partially obscured path is acceptable when providing shorter links, a line of sight is required for the longest links. If longer ranges are required, then Red-M can offer alternative solutions.

## SUPPORT AND MAINTENANCE

Red-M provides a range of maintenance services, offering both Reactive Maintenance and Proactive Monitoring. Remote monitoring and diagnostics are provided by in-band management of the network elements using SNMP.

**CONTACT US TODAY TO FIND OUT HOW RES CAN SAVE YOU MONEY NOW**

Independent of equipment vendors and technologies, Red-M enables organisations to fully realise the benefits of wireless systems by delivering high quality solutions through an integrated five step cycle of best practice:

### 1. CONSULTING

Defining exactly how, when and where wireless will be used.

### 2. AUDIT

Understanding what is happening and developing a design baseline.

### 3. DESIGN

Optimum wireless performance from a design that works right, first time.

### 4. IMPLEMENT

A non-disruptive installation using best-of-breed technologies.

### 5. MANAGE

Maintaining a healthy network that continues to meet your needs.



## CORPORATE OFFICES

Graylands, Langhurstwood Road, Horsham, West Sussex, RH12 4QD, UK  
t: +44 (0) 1403 211100 f: +44 (0) 1403 248597

For more information visit [www.red-m.com](http://www.red-m.com) or email [info@red-m.com](mailto:info@red-m.com)

DOC.REF: IMP-RES-1107:3

# Red-M

when wireless matters<sup>TM</sup>