

This information sheet provides details about Private Business Radio (PBR). A business radio system is used to pass messages between a base station and mobile sets and mobile to mobile as an aid to conducting business. The different Business Radio licences allow the licensee to operate different types of systems in accordance with licence conditions and Wireless Telegraphy legislation.

Public Access Mobile Radio (including TETRA)

OfW119 (formerly Radiocommunications Agency information sheet RA 308)

1. What is Public Access Mobile Radio?

If your company wants to use commercial two-way business radio, to communicate with your delivery or sales staff, for example, you can either provide your own communications in-house or purchase the facility from a service provider.

Within a local area, a transmitter at a single site – or up to three linked transmitters at separate sites – may provide a service for a number of customers, typically up to 45km from the transmitter site. This transmitter or group of transmitters is called a Common Base Station (CBS), details of which are provided in information leaflet OfW54.

If more than three transmitters are linked together to form a regional or national network, the service is known as Public Access Mobile Radio (PAMR). Any communications services need to be operated in accordance with the General Conditions of Entitlement made under Section 45 of the Communications Act 2003.

CBS's that have evolved into systems with more than three linked base station sites will remain under the CBS licensing policy.

PAMR uses a facility called 'trunking', which links a number of channels so that a mobile using the network can choose the next available free channel rather than having to wait for a particular channel to become free. This reduces the call-waiting time and also improves the efficiency of spectrum use.

Signalling is used to identify and separate the individual customer groups sharing the service. This gives a degree of privacy, although (like most radio systems) PAMR cannot provide complete immunity from eavesdropping.

A PAMR subscriber has both a larger coverage area and potentially a higher grade of service than a Private Business Radio (PBR) operator, without the infrastructure and maintenance costs of a PBR wide-area system. Subscribers do not need individual radio licences since the PAMR operator is licensed under the Wireless Telegraphy Acts, which cover all radio use on the assigned channels.

PAMR is suitable for use in both rural and urban areas with a reasonable antenna size.

2. What is Terrestrial Trunked Radio Access (TETRA)?

TETRA is a relatively new digital service which combines the virtues of two-way radio, mobile telephony and messaging in one handset. It is designed for use by groups such as sales forces and field service teams, and handsets can communicate with one another directly if they are outside the reach of a base station.

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An enhanced version of TETRA, generally referred to as TETRA Release 2, is expected to provide increased data rates of up to 130 kilobits per second.

3. Frequencies

At present, most PAMR systems operate in the former television broadcasting spectrum Band III (174 to 225 MHz); they are sometimes referred to as 'Band III Networks'.

The TETRA network operates in the band 410 to 430 MHz.

4. UK Radio Interface Requirements

The UK Radio Interface Requirement relating to PAMR is IR2013.

The UK Radio Interface Requirement relating to TETRA is IR2004.

Copies of these are available on the Ofcom website or from the Ofcom Contact Centre – see Section 9.

5. Licensing

Wireless Telegraphy Act 2006 licences for PAMR and TETRA are allocated through a public consultation process, involving an award system based on comparative selection or an auction process. Licences are renewable annually.

6. Fees

The annual fees for PAMR and TETRA are listed in the annual Wireless Telegraphy (Licence Charges) Regulations and on the Ofcom website – see Section 9.

7. Summary of benefits for users

PAMR offers a number of advantages over traditional PBR:

- no need to apply for a licence;
- no need to buy and maintain an expensive infrastructure;
- a choice of network and mobile equipment;
- high-quality channels with exclusive use during each conversation;
- computer-controlled access, giving short waiting times and a degree of privacy;
- flexible coverage (regional or national);
- the potential (using TETRA) to migrate and roam between networks, in a similar way to Global System for Mobile Communications (GSM) users; and
- availability of a range of value-added services such as short data transmission or interconnection to the public switched telephone network.

8. Who provides PAMR services?

One operator is currently licensed to offer a national service. Several other operators offer services in specific regions. For details of services and tariffs, contact the operators directly at the following addresses:

Company name	Contact details	Operational area
Fleetcom Ltd	The Grange, Rawcliffe Road, Goole, Humberside DN14 6TY Tel: 01405 7769031 Fax: 01405 720047	National
Centronet 3 Ltd	Radio House, 15 Sutton Street, Birmingham B1 1PG Tel: 0121 622 5555 Fax: 0121 622 3328	Birmingham
RS Hill & Sons Ltd	Acacia House, 49 Trinity Street, Fareham, Hants PO16 7SQ Tel: 01329 232708 Fax: 01329 822529	Guildford area
Mercantile Radio Services Ltd	134 Gloucester Avenue, London NW1 8JA Tel: 020 7586 9851 Fax: 020 7722 0966	London
Zycomm Electronics Ltd	Nottingham Road, Ripley, Derby DE5 3AS Tel: 01773 570123 Fax: 01773 570155	East Midlands

9. Further Information

For more information about PAMR and TETRA, please contact:

Ofcom Contact Centre

Riverside House
2a Southwark Bridge Road
London
SE1 9HA

Tel: 0845 456 3000

Fax: 0845 456 3333

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