

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.

Trunked Systems for Private Business Radio (PBR)

OfW74 (previously Radiocommunications Agency information sheet RA 341)

1. What is trunking?

Trunking is a spectrally efficient method of co-ordinating a number of individual channels to manage traffic on a PBR system.

In conventional PBR systems, each mobile has access to only one channel. On a trunked system, every mobile has access to a pool of channels. When a mobile becomes involved in a call, one of the unused channels is dynamically assigned to it for the duration of that call, after which the channel returns to the pool for use by any mobile.

The system's efficiency depends on good design based on sound engineering principles, including the grade of service required and the facilities that may be needed. A poorly engineered system may need more channels than an untrunked system to provide the same level of service – for example, a three-channel trunked system with a permanent control is less efficient than a three-channel untrunked system. Therefore, we do not automatically grant permission to set up a trunked system, even if it will use existing channels.

However, many PBR licensees may benefit from adopting a trunked radio system.

2. How to apply

You can request permission to set up a trunked system whether you are an existing PBR licensee or a new applicant. To apply, you must send Ofcom (the Office of Communications) a full technical description of your requirements – both current and future – including statistical details of likely traffic levels.

Your application will be assessed on its technical merits. We will take into account the availability of existing channels in your operational area, as well as your proposed channel loading, weighing these against our need to manage the spectrum for future as well as present use.

You, in association with your equipment supplier, must send Ofcom a detailed description of your proposed system. This should include details such as system loading, grade of service required, technical parameters and methods of traffic management. The system should be engineered to be at least as efficient as that described in the protocol MPT1327, *A Signalling Standard for Trunked Private Land Mobile Radio Systems*.

We cannot consider your application until this engineering study has been submitted. Document MPT1318, *Engineering Memorandum on Trunked Systems in the Land Mobile Radio Service*, outlines the principles and the parameters on which your report should be based.

If you are requesting more channels than your current assignment, you must:

- tell us why we should assign you additional channels; and
- outline any likely impact on the system's spectrum efficiency.

First steps

Initially, you should send us a detailed application, including a design outline. Send your application to the Ofcom Contact Centre – see section 3.

Ofcom will consider your application and conduct a technical assessment before making a decision.

3. Further Information

If you have any queries about trunked business radio systems, please contact:

Ofcom Contact Centre

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2a Southwark Bridge Road
London
SE1 9HA

Tel: 0845 456 3000

Fax: 0845 456 3333

Email: contact@ofcom.org.uk

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