

TetraFlex® Case stories



Project:

Scottish Prison Service – Radio replacement.

Application/Market segment:

To replace the existing analogue radio communications system with a modern computer assisted digital scheme.

Objectives and requirements:

The project attracted a number of potential suppliers and was highly competitive being a prestigious project with a government body. The aim was to supply a TETRA radio scheme but with enhanced features to allow the system to provide facilities to aid; security of the network, safety of users; integrity of information handled; improved efficiency of communications.

The main control room is the nerve centre for a prison and the operators control the movement of prisoners and co-ordinate all activities. In addition alarms and handled through the control room from a variety of sources. It is therefore essential that all information from all systems is presented in a clear and unambiguous manner.



For the radio scheme, the radio users need to be clearly identified when making calls to the operator, audio needs to be of a high quality in noisy environments and the grouping of users into separate talk-groups makes handling callers with different needs extremely useful.

The radios have additional facilities which help to streamline various operations and also have advanced features. These can be utilized to enhance officer safety with and lone worker features.

The security of the audio information is vital. Recording of the audio with an accurate log of calls is an aid for audit purposes together with the means to control who has access to the radio network and the removal of radios from the system if one is taken out of service or mislaid.

SAFETYNET digital

Project details:

PMR Products have been the leaders of radio technology in the UK Prison Service for over 10 years with an analogue product called SafetyNet. SafetyNet is a software package running on a PC and provides a user interface to one or more operators for the management of the radio scheme or more specifically the movements of prisoners and the accurate recording of this information. The market was ready to move to Digital and PMR Products developed SafetyNet Digital to provide similar features already provided and well proven within the service on a digital platform.



The project required the replacement of analogue radio equipment in 14 establishments throughout Scotland plus the training college. The base station systems are located in the optimum site for best RF coverage but control rooms are often not located in the same area. PMR's engineers had to resolve a number of problems to allow the routing of signals through some of their ageing infrastructure but various techniques were developed to use this where possible.

The scheme depends on a totally integrated solution with the radios, base station infrastructure and control room equipment all designed to work together to give the solution demanded by the customer. PMR in conjunction with SPS designed the system around the operational needs. SafetyNet provides the front end for the operators with all the tools necessary to satisfy them. SafetyNet provides the gateway to the radio scheme, presenting information on the computer screen making operation of the system simple and concise with easy to use controls.



SafetyNet is a networked solution allowing multiple terminals to be provided as gateways to the TetraFlex system over a standard LAN. Simple PC tablets were provided to allow access to the radio talkgroups from anywhere onsite with a LAN connection such as a gatehouse or incident suite effectively extending radio. Operators can take care of special groups of radio users or incidents via these workstations.

Reasons for choosing TETRA / TetraFlex®:

TETRA was chosen as the technology due to;

- Common ETSI digital standard
- Compact radio terminals with modern look and feel
- Flexible talkgroup structures
- Security of the audio traffic due to digital encoding of signals
- Advanced features



As a main infrastructure element PMR Products worked with Damm and the TetraFlex® solution integrated with SafetyNet Digital. The Sepura SRH3800 terminal was chosen as it lends itself to integration into SafetyNet's advanced features very well with a number of sophisticated status messaging features and is highly versatile and flexible in its programming.

At the time, many of the vital features were missing from the API link with TetraFlex. Damm's engineers worked with PMR to develop the API to a level which gave SafetyNet the facilities needed to meet all of the objectives of the customer making the product hugely powerful and more advanced than any of its competitors.

Other platform were offered but the combination of SafetyNet Digital working with TetraFlex and Sepura terminals provided the exact system solution at the right price. The engineering of the complete solution was the winning factor for the project.

Customer feedback:

The project plan went precisely to the original timescale and the project came in within budget. The whole replacement took place in 4 months and the customers now enjoy crystal clear communications with better range and facilities than previously with the every latest digital technology.

Contact details for further questions.

Steve Clarke
Managing Director
sj.clarke@pmr-products.com

David Horton
Sales Director
dn.horton@pmr-products.com

PMR Products Ltd telephone: +44 (0) 1291 629 333

Website: www.pmr-products.com



Innovative Solutions in Mobile Radio

Evets House Station Road Chepstow Monmouthshire NP16 5PB United Kingdom
Tel 01291 629333 Fax 01291 621567 enquiries@pmr-products.com www.pmr-products.com