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ВНЕДРЕНИЕ СЕТИ TETRA

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Ключевые слова: *ТЕТРА, транкинг, радио, беспроводная связь.*

Аннотация. Стандарт TETRA был специально разработан для удовлетворения потребностей различных традиционных организаций-пользователей PMR. Это означает, что он имеет масштабируемую архитектуру, позволяющую экономично развертывать сети в диапазоне от локального покрытия одного сайта до общенационального покрытия нескольких сайтов.

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TETRA NETWORK IMPLEMENTATION

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Key words*: TETRA, trunking, radio, wireless*

Annotation The TETRA standard has been specifically developed to meet the needs of a variety of traditional PMR user organizations. This means it has a scaleable architecture allowing economic network deployments ranging from single site local area coverage to multiple site wide area national coverage.

Introduction

TETRA, or Terrestrial Trunked Radio is a global Land Mobile Radio (LMR) open standard for digital trunked radio technology. The standard was developed by public safety and two-way radio industry experts together with the European Telecommunications Standards Institute (ETSI) to ensure TETRA portable, handheld, mobile, vehicle-mounted and fixed-base devices, as well as the network infrastructure, provide secure, reliable and instant voice and data communications in mission critical, operations critical and business critical environments.

TETRA systems are used in both public safety and commercial sectors by organisations that need reliability, capacity and security for their communications. TETRA infrastructures, devices, services and applications are used by many industries, including Public Safety, Oil & Gas, Transport and Logistics, Utilities and more.

Terrestrial Trunked Radio

Some unique PMR services of TETRA are:

- Wide area fast call set-up "all informed net" group calls
- Direct Mode Operation (DMO) allowing "back to back" communications between radio terminals independent of the network
- High level voice encryption to meet the security needs of public safety organizations
- An Emergency Call facility that gets through even if the system is busy
- Full duplex voice for PABX and PSTN telephony communications

Besides meeting the needs of traditional PMR user organizations, the TETRA standard has also been developed to meet the needs of Public Access Mobile Radio (PAMR) operators.

To meet the ever changing user requirements and utilize the latest technology developments, TETRA continues to be evolved and enhanced with the development of new standards. This includes TETRA Release 2, which includes the TETRA Enhanced Data Service (TEDS) that provides wideband high speed data communication services.

Tatneft is a large Russian oil and gas group. The Group has nine crude oil and gas production facilities, seven oilfields and 23,000 production wells, which are spread over a huge area, so providing reliable voice and data transmissions between all the sites was difficult.

At the beginning of 2017, Tatneft decided to overcome the communications problem by investing in new technology. However, there were disagreements on whether to buy TETRA two-way radio terminals or using cellular smart phones.

However, Hytera's Russia office was able to solve the problem and keep both departments happy by suggesting Tatneft use the Hytera PTC760 multi-mode advanced terminal, which supports both TETRA and LTE, as well as Wi-Fi and Bluetooth.

In order to provide a better solution for its mobile workflow management plan application across all its production facilities and to provide a solution for remote asset monitoring and control automation of its equipment better to use TETRA

Thus, the introduction of TETRA will make it possible to significantly optimize the costs of wired and cellular telephone communications, completely eliminate the cost of a subscription fee for wired communication lines with oil production facilities via the Region operational dispatch communication, increase labor productivity in all groups of workers - from the operator to the head of the department.

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