Hytera
Respond & Achieve

Hytera DMR Trunking

DMR trunked radio system for professional users

Hytera DMR Trunking is designed especially for sophisticated voice transmission and dispatcher communication. Apart from the completely IP-based system architecture and centralized networking, the trunked radio system Hytera DMR Trunking focuses on a modular design of the system components.

Due to the flexible networking options and the high degree of scalability, small areas as well as large areas can be supplied with reliable radio communication.

DMR
DIGITAL MOBILE RADIO ASSOCIATION

www.hytera-mobilfunk.com

DMR

About Hytera Mobilfunk

Hytera Mobilfunk GmbH is a German supplier of solutions and products in the field of Professional Mobile Radio (PMR). As a known specialist for mobile radio technology, we have been pioneers of professional digital mobile radio systems for more than 30 years and are one of the world's leading manufacturers of TETRA infrastructure components.

Our expertise lies in the development, planning and implementation of digital trunked radio systems. Each of our mobile radio systems is a customised solution with optimum performance. Each of our mobile radio systems is precisely matched to the respective intended use and your requirements. A complete turnkey solution with optimum performance, developed in close co-operation with our customers.

Customers in more than 40 countries on four continents are already using our solutions: in industry, oil and gas business, public safety and local public transport, at airports and for military applications. Besides first-class technology from Hytera, they appreciate particularly one aspect: our comprehensive, customer-based project management with which we solve problems before they occur.

Benefits of Hytera DMR Trunking

Hytera DMR Trunking is designed especially for sophisticated voice transmission and dispatcher communication. Apart from the completely IP-based system architecture and centralized networking, the trunked radio system Hytera DMR Trunking focuses on a modular design of the system components to be able to demonstrate its strong points:

Increased operational reliability

- Hytera DMR Trunking combines optimum radio coverage with the benefits of digital radio engineering

More efficient working

- Network management software as well as the dispatcher and voice recorder systems make Hytera DMR Trunking an overall radio solution

Reliable and fail-safe operation

- Redundancy of the most important hardware components ensures system availability even in the case of failure of single components

Cost-efficient migration from analog to digital

- Easy transition from analog radio operation to Hytera DMR Trunking step by step

Comfortable network operation

- With convenient user interface and its versatile functions, the Network Management System (NMS) provides centralized management of the radio system and supports remote maintenance

Due to the flexible networking options and the high degree of scalability, small areas as well as large areas can be supplied with reliable radio communication. Thus, Hytera DMR Trunking is especially suitable for utility companies, operation centres or industrial enterprises.

Diverse architecture options for a customer-friendly network design.

Hytera DMR Trunking is a modular radio communication solution that can be tailored optimally to customer requirements. The IP-based system architecture provides for flexible networking and makes low demands on the system connections. Based on commercially available network technology such as servers, switches and routers, the IP transport network of the DMR system can be maintained and upgraded cost-efficiently.

Features of Hytera DMR Trunking

Hytera DMR Trunking was developed in according to the open ETSI radio standard DMR for digital trunked radio systems (DMR Tier III). The functions and services described in the following provide an overview of the capabilities of Hytera DMR Trunking.

Voice and Data

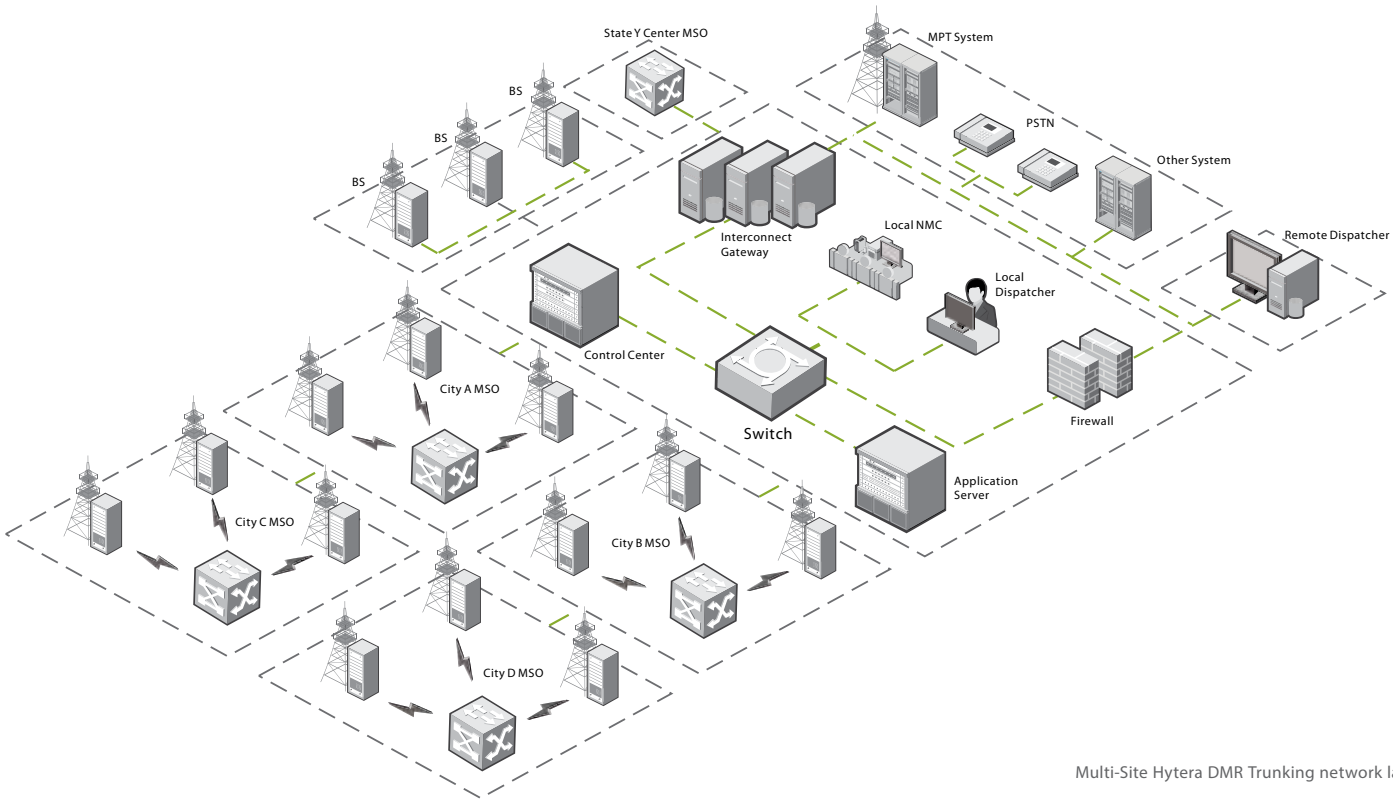
- Individual call, group call, all call, broadcast call and emergency call
- PSTN/PABX call, semi-duplex call, full-duplex call
- Support of call priorities and emergency call
- Text and status message, GPS data, packet data transmission
- Supporting services like Late Entry or CLIP
- Calls can be monitored and recorded
- Call group tracking to fetch subscribers from another call into a group call with a higher priority
- Dynamic group number assignment (DGNA)

Safety Functions

- End-to-end-encryption of voice and data
- Encryption with 40, 128 or 256 bits with AES and ARC4
- Support of the DMRA procedure for the encryption transmission via the air interface
- Selecting and deselecting radio transceivers (enable/disable)
- Authentication

Mobility Management

- Mobility management (registration/deregistration)
- Group login/group logoff
- Roaming and handover



Multi-Site Hytera DMR Trunking network layout

Hytera DMR Trunking Base station

The base station for the trunked radio system Hytera DMR Trunking by Hytera ensures wireless communication in compliance with the DMR trunked radio standard.

If the connection to the associated system controller node is lost, the base station continues to ensure radio operation in its radio cell. Thus, radio subscribers registered at this base station can continue to communicate.

Due to various redundancy options, the reliability is also increased. If the first carrier fails, the control channel can be provided by the second carrier (control channel redundancy). Furthermore, an additional Base Station Control Unit (BSCU) can be integrated.

The base station for Hytera DMR Trunking at a glance:

- Modular structure for ease of operation and maintenance
- Antenna coupling system that can be adapted to customer requirements
- Connection to the system controller node via IP or E1
- Easy-to-update software

MSO - The switch of Hytera DMR Trunking

The Mobile Switching Office (MSO) provides the routing functions, the gateways to telephone networks and other systems as well as interfaces for applications for Hytera DMR Trunking.

Key facts of the MSO

- An MSO can control up to 50 base stations
- The MSO provides gateways to the telephone network (PSTN), PABX and analogue radio systems
- MSO can be designed redundantly

Network Management System (NMS) for Hytera DMR Trunking

The Network Management System (NMS) serves for administrating Hytera DMR Trunking efficiently. It provides vast functions for monitoring, for the operation as well as for the maintenance of the entire DMR system. In addition, it facilitates the configuration of the software and hardware components.

The NMS provides all the important functions that are expected of state-of-the-art network management: subscriber administration, configuration management, fault management, security management as well as topology management and performance statistics.

The Network Management System of Hytera DMR Trunking at a glance:

- Due to its client-server architecture, as many as 30 workstations can be connected to the NMS.
- Remote centralized management of network elements and software updates (remote).
- Support of SNMP to facilitate an integration into network management solutions of the customer's

Ihr Hytera-Partner:

Weitere Informationen unter:
www.hytera-mobilfunk.com

Kontaktieren Sie uns, wenn Sie sich für Kauf, Vertrieb oder Anwendungspartnerschaft interessieren: ✉ info@hytera.de

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