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creating safety by technology

IDDS UCiP

Unified Mission Critical Communications

PRODUCTS | SOLUTIONS | SERVICE

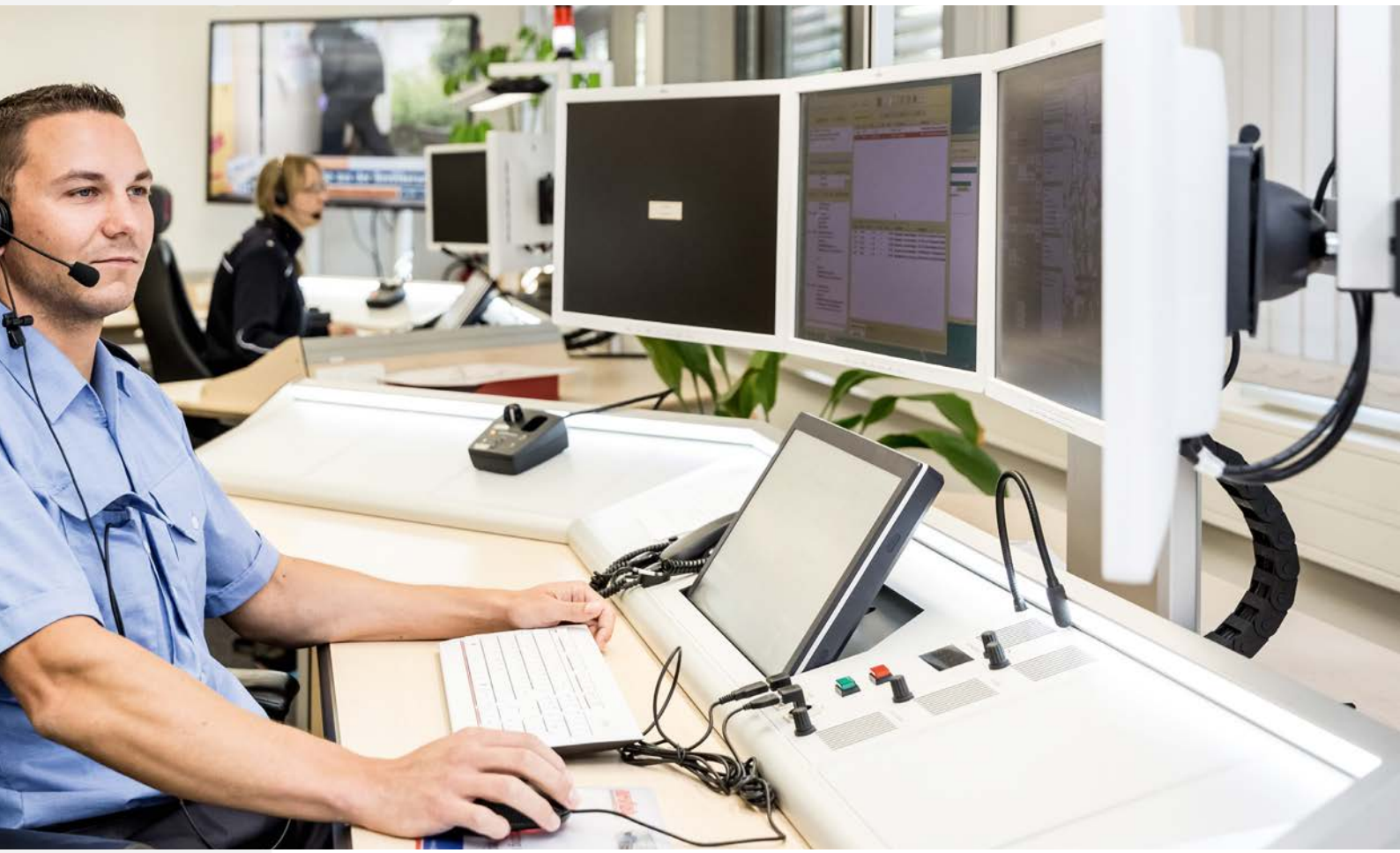
IDDS UCiP – Central Communication System for Operation Centers

The IDDS UCiP (Integrated Digital Dispatching System – Unified Communications IP Platform) is a platform for radio/emergency call handling for use in operation centers. The target segment includes operation center associations, individual operation centers for the police, rescue services, fire service and other organisations with comparable safety-related tasks in the public and private sectors.

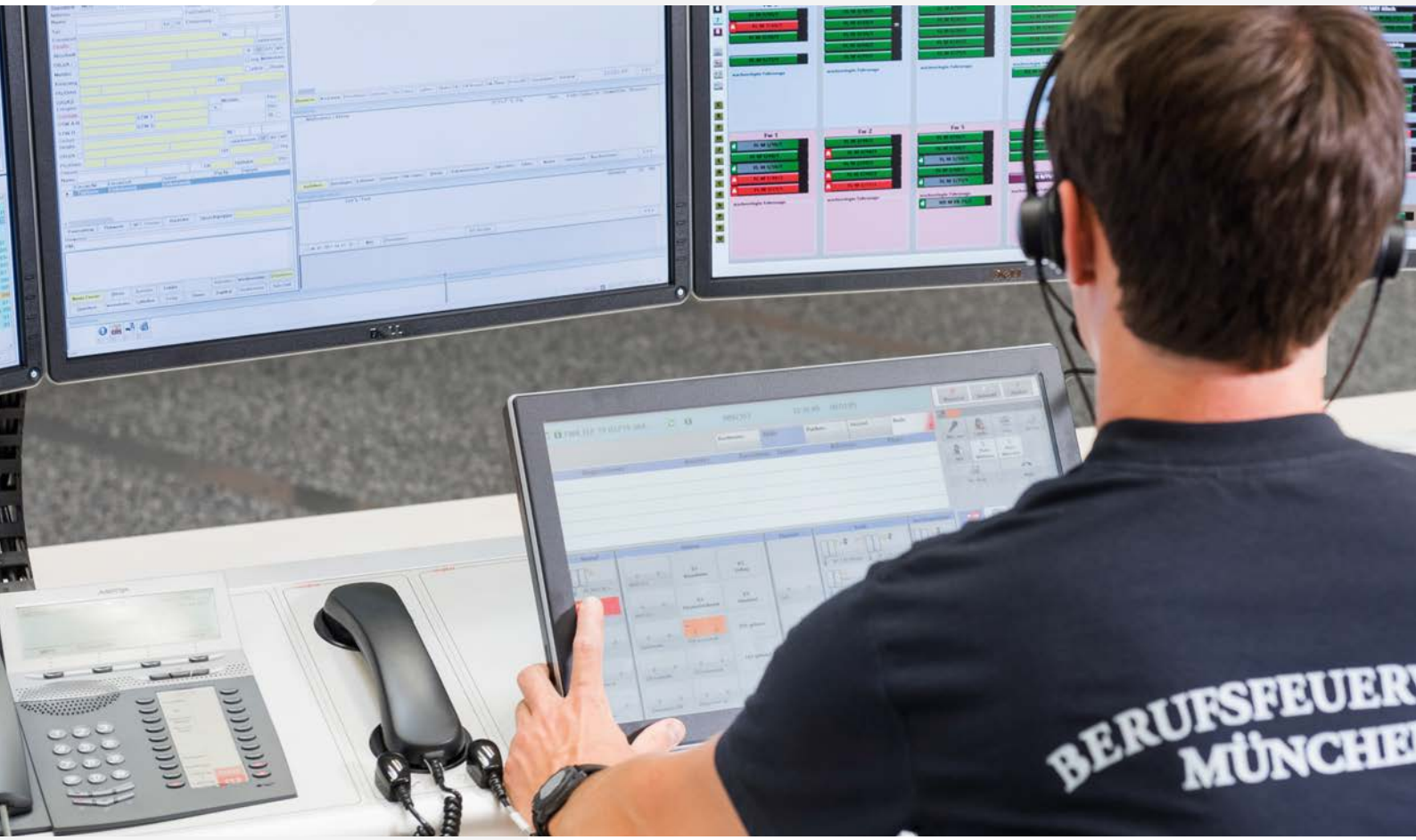
The switchboard on the IDDS UCiP platform is generally based on **IP and voice-over-IP technology**. Seperated operation center locations are linked on the basis of an **IP infrastructure** with adequate **quality of service** [VPN].

New functions are also available in conjunction with this networking of several operation center locations. The functions overflow, substitution and support/remote control in operation center associations enable more efficient call processing and make it possible to work from any operation center location. To work, these combined functionalities require the **administration system** developed specially for the IDDS UCiP platform for network-wide administration of clients, roles, rights and users.

IDDS UCiP



Core unlimited functionality.



Spatial independence of dispatchers.

LINKING AND NETWORK

By linking the operation center technology at multiple sites into an operation center network, IDDS UCiP facilitates transparent access to all communications resources, such as digital radio, analogue radio, emergency call and telephone channels, regardless of where the operation center is situated. **This allows for efficient, location-independent support to be provided in a wide range of operational situations.** Scalable, decentralised architecture increases reliability in the network.

Interlinked operation center technology allows access to resources such as the local radio infrastructure at other sites in the operation center network. This facilitates direct communication with units on the ground, making it possible to manage deployments efficiently.

Internal communication links are used for contact between operation centers. Allowing any call-related details (e.g. location data, caller's number, name, address) to be passed on in full when telephone calls are transferred within the network.

New network-specific performance features relating to the key areas of substitution, overflow and support, offer great benefits to customers and increase overall system efficiency. To allow these network features to be used effectively, a centralised, role-based administration system has been developed. **This means that IDDS UCiP offers a platform where the organisation, user, role and permission management settings for all operation centers in the network can be configured at once, from a central location.**

COVER

If an operation center is fully functional from a technical perspective but must be evacuated due to an incident of some kind, the operations for this command center should be taken over entirely by another center in the network. It is also possible for dispatchers from the evacuated operation center to carry out their duties in this center.

Networked operation centers mean that existing features previously used at just one operation center site can be shared intelligently within the group, allowing them to be utilised more efficiently. For example, a central ACD (automatic call distribution) service can facilitate call distribution throughout the operation center network.

As a network solution, IDDS UCiP therefore not only supports operation center personnel in overload situations, but also enables **"free seating",** where dispatchers are not tied to a particular location.This means that a role can be carried out from anywhere and by any dispatcher in the operation center network.

HIGH RELIABILITY

The IDDS UCiP offers a high degree of availability without SPOF (Single Point of Failure) for individual operation center locations as well as the entire system without redundant component design. With the IDDS UCiP architecture an especially high degree of reliability can be achieved for communication links with two subscribers (PTP-connection) because the VoIP audio transmission takes place directly from the gateways to the workstations. That means that audio transmission does not take place via a third component such as a routing system or a core switch. This is a crucial advantage for especially critical emergency call retrievals, because these typically take place via PTP connections.

The "no SPOF for individual operation center locations without redundant component design" feature is created using the three switching levels (gateway, mixer and conference server, and workstation) with the option of circumventing the mixer and conference server switching levels for PTP connections and certain conferences. This applies both to signalling and to audio transmission.

OVERFLOW – SUPPORT

It may happen that the operators on duty are unable to respond to emergency calls quickly enough. For such cases, the IDDS UCiP has integrated two crucial functions into the system. If there is an **overflow,** emergency calls that are not answered within 20 seconds, for example, will be transferred to and signalled in the other operation centers of the association as an "overflow emergency call". This will ensure that all calls are dealt with as quickly as possible.

If a situation that may cause an overload in an operation center occurs (e.g. an accident in a nearby chemical plant), then operators from other operation centers within the association can be called upon for **support.** In this way, these exceptional situations can be dealt with in a relatively stress-free manner. The supporting operators will have allocated to them roles/responsibilities (including the full scope of tasks) other than their own; i.e. the operator can competently deal with emergency calls for their own operational area as well as emergency calls for the area that they are offering support to.

TETRA – DIGITAL TRUNKED RADIO

The IDDS UCiP can be connected to various digital radio networks, such as the BDBOS (the Federal Agency for Digital Radio of Security Authorities and Organisations), via the **TETRA Gateway** developed by eurofunk. Sophisticated redundancy mechanisms ensure smooth operation even when it comes to the failure of a gateway. This, combined with the dynamic TCS allocation, facilitates optimal usage of all available TETRA resources.

IDDS UCiP At a glance

High-availability (≥99.99%) IP-based **VoIP communication platform** for operation centers and operation center associations

Flexible and stable platform for retrieval of emergency calls, and telephony and radio systems (digital and analogue)

Scalable, decentralised architecture

Decentralised IDDS UCiP components (Failure of one component does not lead to system failure, risk-sharing at operator places, no soft-switch function)

Centralised administration (Simple configuration via one web interface, multi-client capability, user and rights management)

Use of resources across all locations to increase efficiency (support for special operational situations, call overflow, remote control of operation center in various failure scenarios, free seating – spatial independence of dispatchers)

Features for achieving high sound quality in IP networks

Universal and clear operator interface

Multilingual user interfaces

Integrated subscriber list with flexible search functions

Direct dialling buttons for convenient communication initiation

Situational operator guidance to avoid operator errors and increase efficiency in call processing

Can be linked to emergency dispatch control computers of other manufacturers via **open system interfaces**

Seamless dialogue connection

Seamless integration into the eurofunk operation center product family

In addition to the classic radio and emergency functions, the following functions can also be carried out using the operator interface:

Control of complex **PA (public adress) technology**

Control of **building and media technologies**

Video management

Traffic light control systems

Radio remote controls

Alarm devices

Monitoring systems (SNMP)

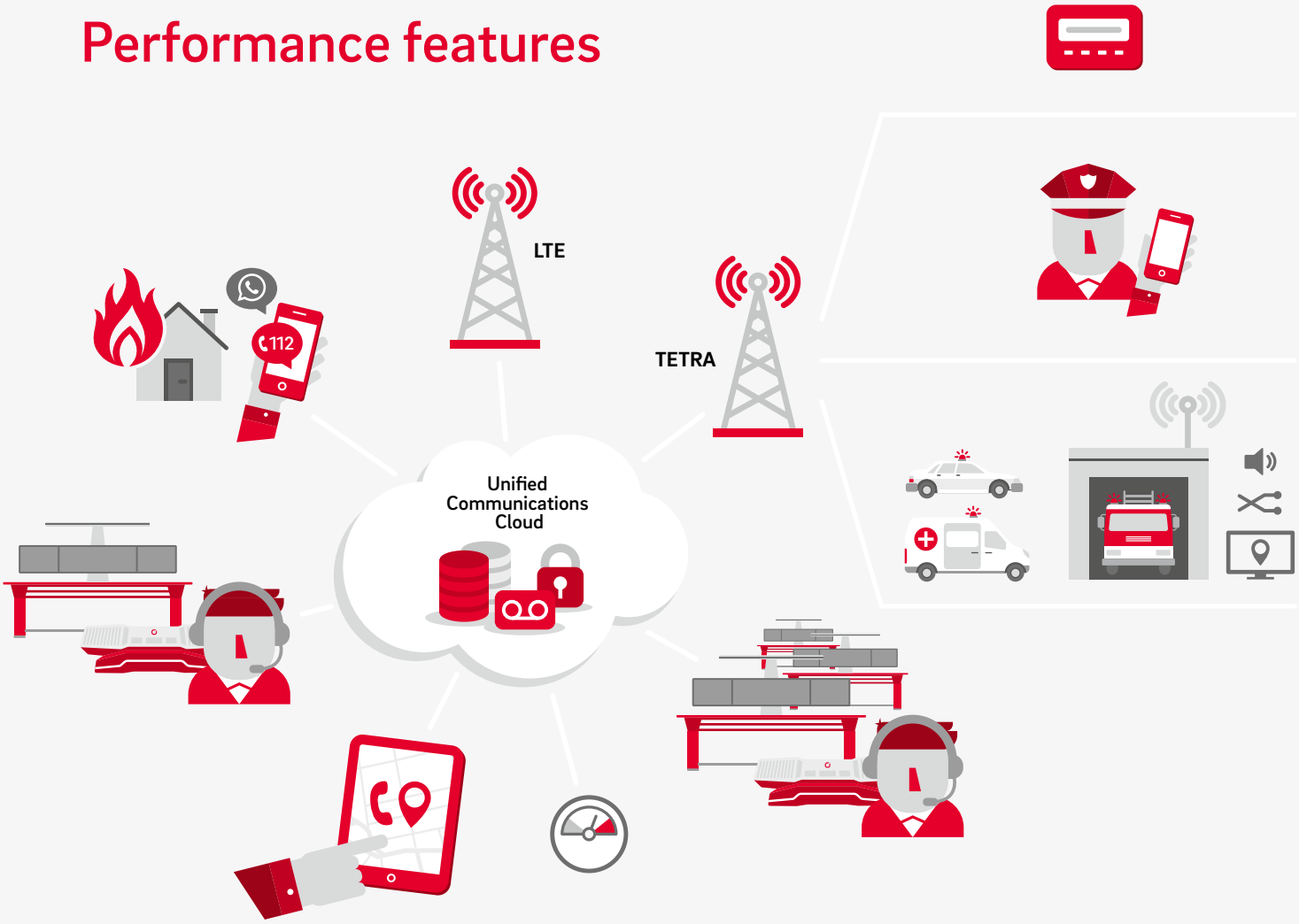
Voice logging

- Integrated short-term documentation
- Interfaces to various long-term documentation systems

Digital voice messages for callers

Several backup levels, increased redundancy

Performance features



- **Individual calls and group calls** (encrypted/unencrypted as well as half-duplex/duplex)
- **Quick combine** (Broadcast) and **Group combine** (combining of groups)
- **Emergency call**
- **Dispatcher call**
- **Call and transmission priorities**
- **Emergency call and assistance call**
- **Announcement call and disaster call**
- **OPTA signalling**
- **Listen-in control**
- **Status reports**
- **SDS, line-to-line SDS, flash SDS**
- **Subscriber tracking**
- **Dynamic TCS client allocation**
- **Multiple group switching in groups**
- **Encryption functions**
- **Position reports and queries**
- **Status return transmission**
- **Query of group participants**

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