



ms Neumann Elektronik GmbH

Communication and information systems
in heavy environments

Modern communication
with high flexibility

Head Office and Production Site

ms NEUMANN ELEKTRONIK GMBH
Lahnstr. 30
D- 45478 Mülheim an der Ruhr,
Germany
Phone.: +49 (0) 208 59 95 0
Fax: +49 (0) 208 59 95 235
E-mail: info@neumann-elektronik.com
www.neumann-elektronik.com



MATTIG



SCHAUER



WENZEL



ms NEUMANN ELEKTRONIK GMBH

- Company founded in 1948 as „Neumann Elektronik GmbH“
- Acquisition by Mattig Schauer in 2004 as „ms Neumann Elektronik GmbH“
- Managing directors:
 - Frank Konrad: responsible for the innovative technology
 - Jörg Michhöfer: responsible for the commercial division
- Production site in Germany
- Worldwide marketing and sales





Orien-
tation

Innovative solutions for voice communication with latest IP technology

We focus on the following features:

- **Additional value due to use of existing networks**
- **Combination of different trades**
- **Experiences in communication due to numerous projects**
- **Applications for small and large premises and firms**
- **Integration and migration of existing communication systems**
- **Use of standards as investment protection**
- **Investment protection of analogue end devices**



Best service from ms Neumann Elektronik

- **Service worldwide**
- **Customized service and maintenance contracts acc. to EN 60849**
 - Inspection of the components by qualified personnel
 - Prompt repair
 - Replacement of old components
- **Advantages of an maintenance contract**
 - High security and reliable operation of the communication systems
 - Constant operational readiness without failures
 - Long term value stability of the communication systems
 - Emergency service even outside business hours
 - Stockage of safety relevant components



DS-6
System

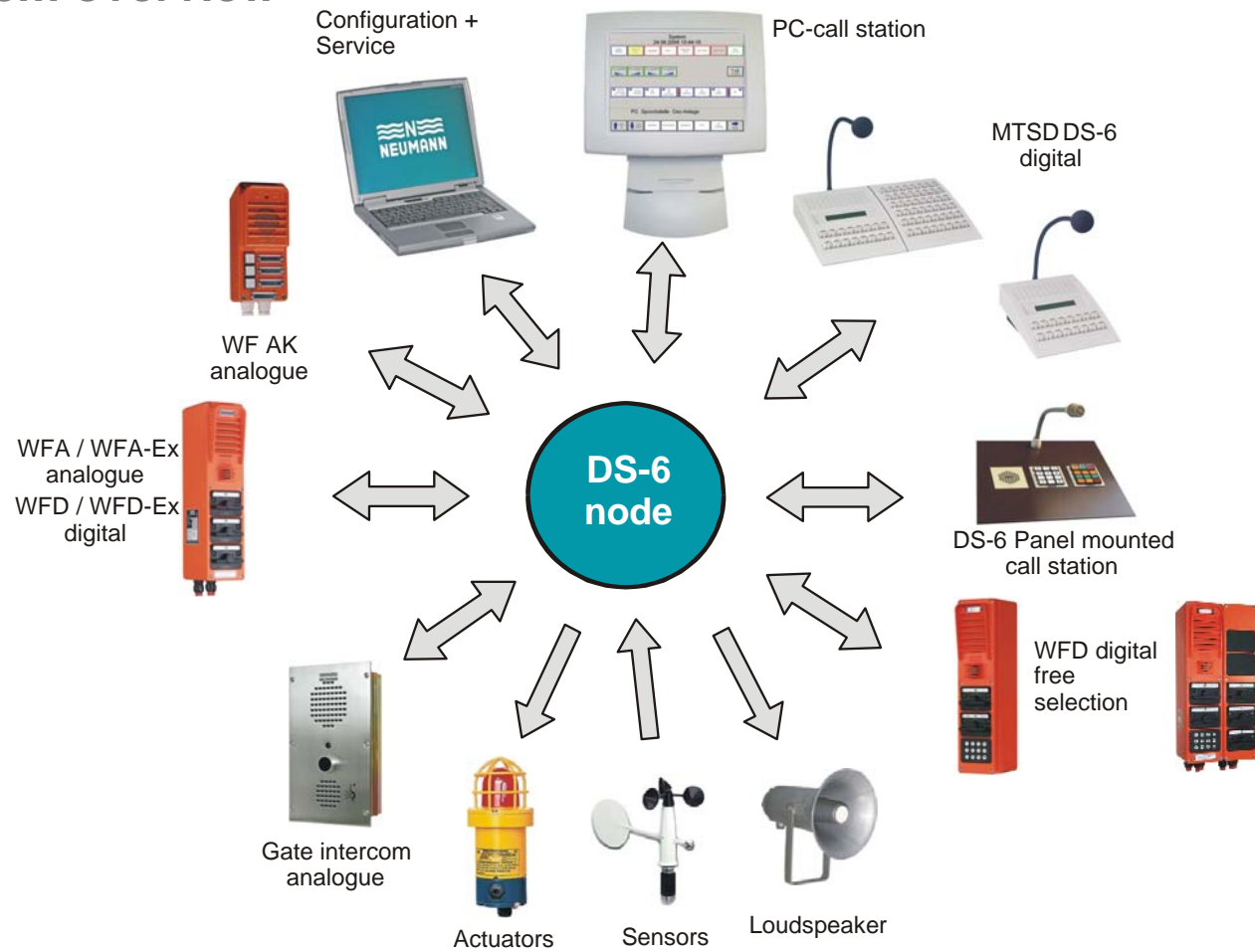
DS-6 intercom system

- **IP based intercom system**
- **Intercom and PA also for Ex-areas**
- **Highest voice quality (12 kHz)**
- **Highest safety due to redundant system structure**
- **Easy maintenance and configuration**
- **Low use of hardware**
- **Modular system structure**
- **Interfaces to existing systems**



DS-6
System

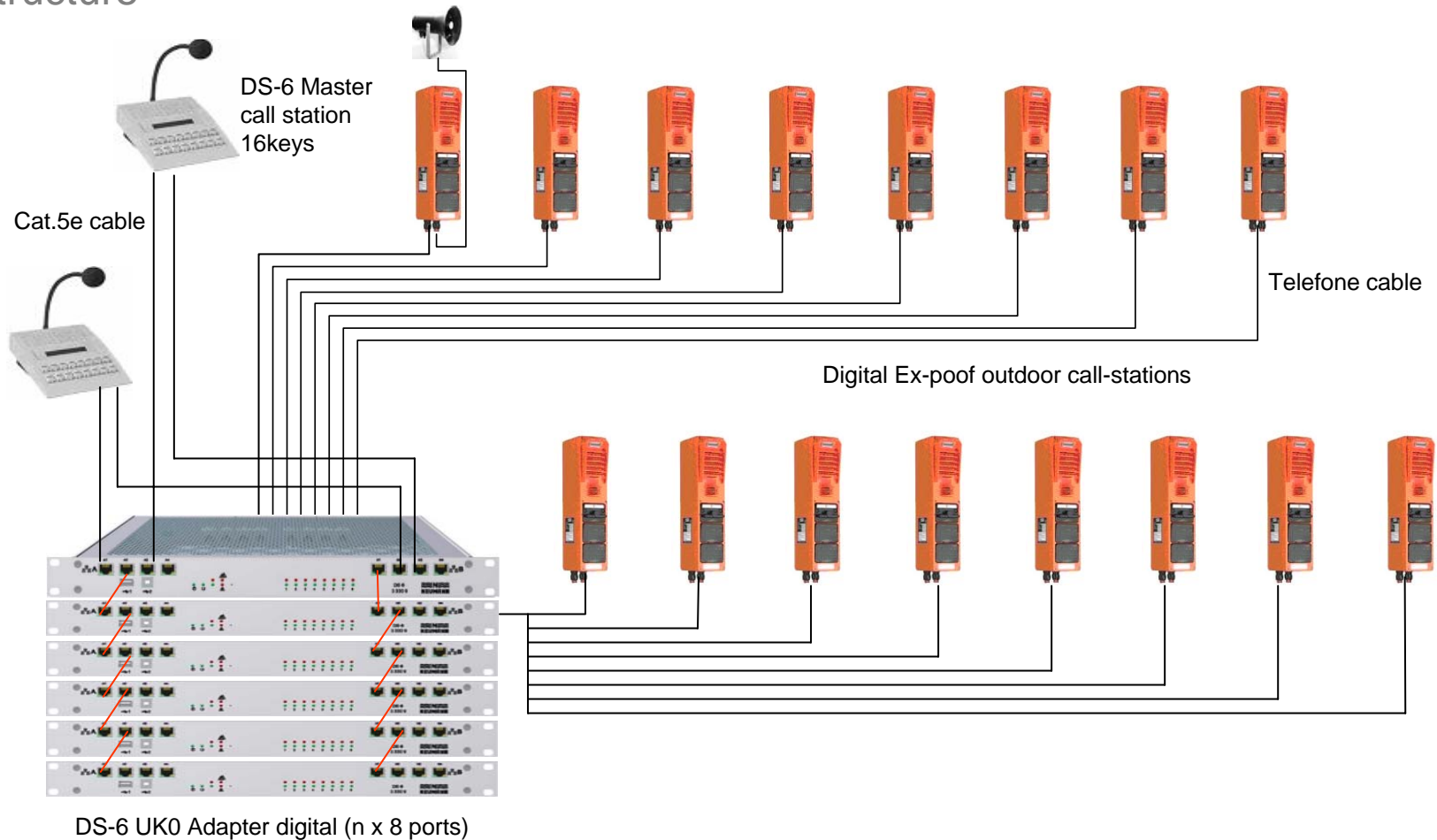
System overview





System structure

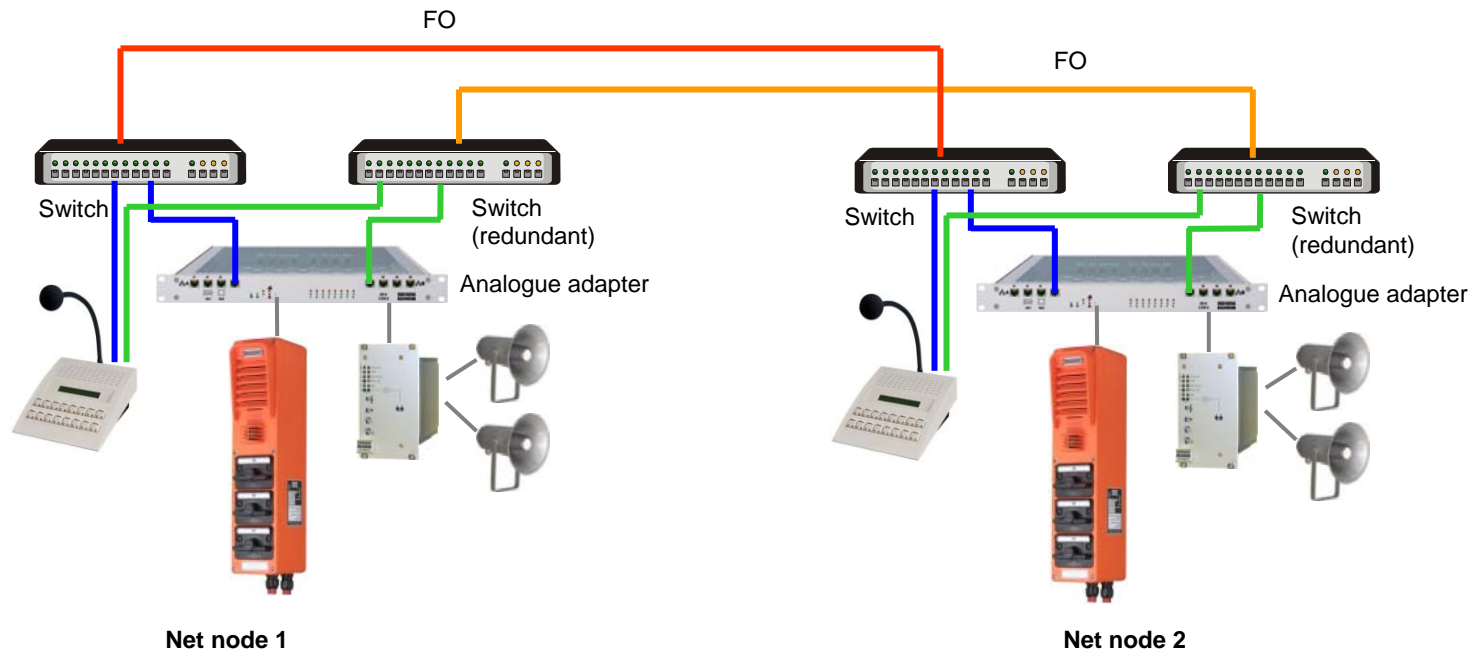
DS-6 Uk0 Adapter





DS-6
System

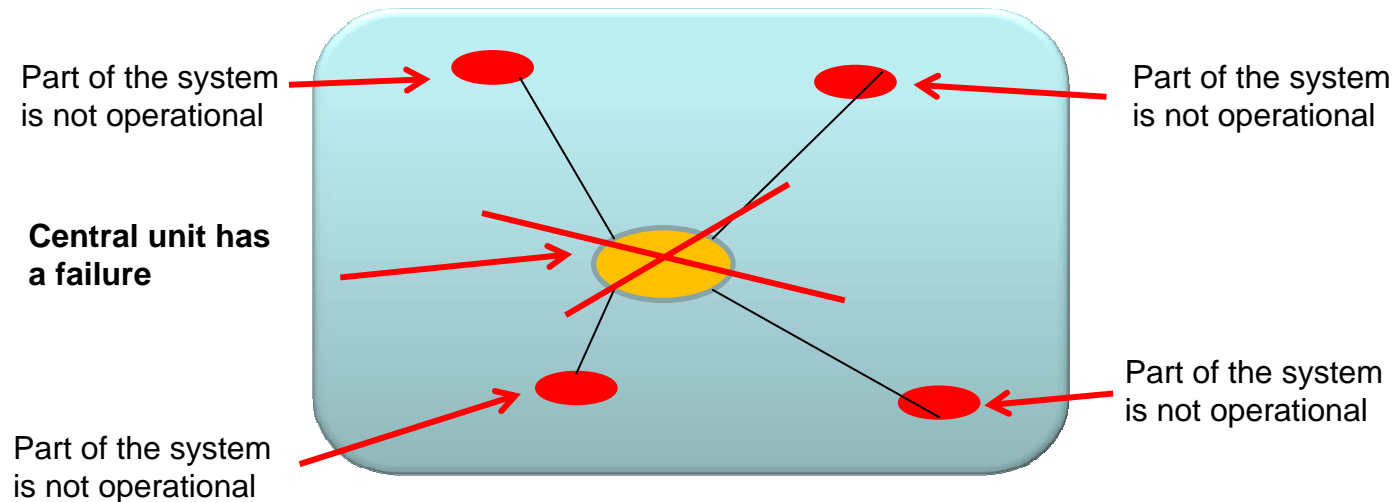
Redundant system structure





DS-6
System

Centralised system in case of failure

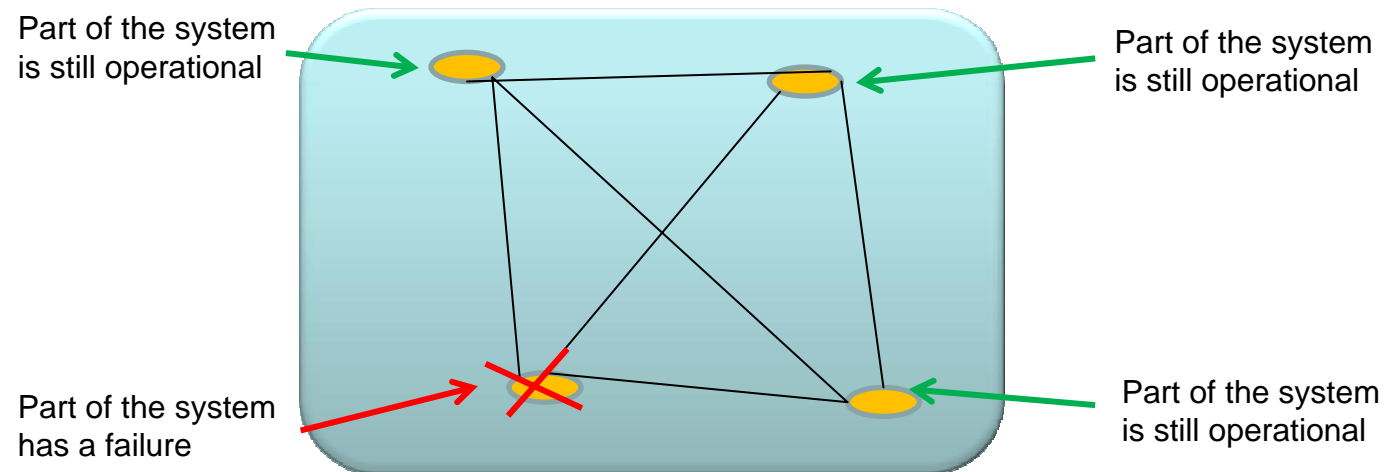


➤ „Single point of failure“ – total system has a failure



DS-6
System

Decentralised system in case of failure

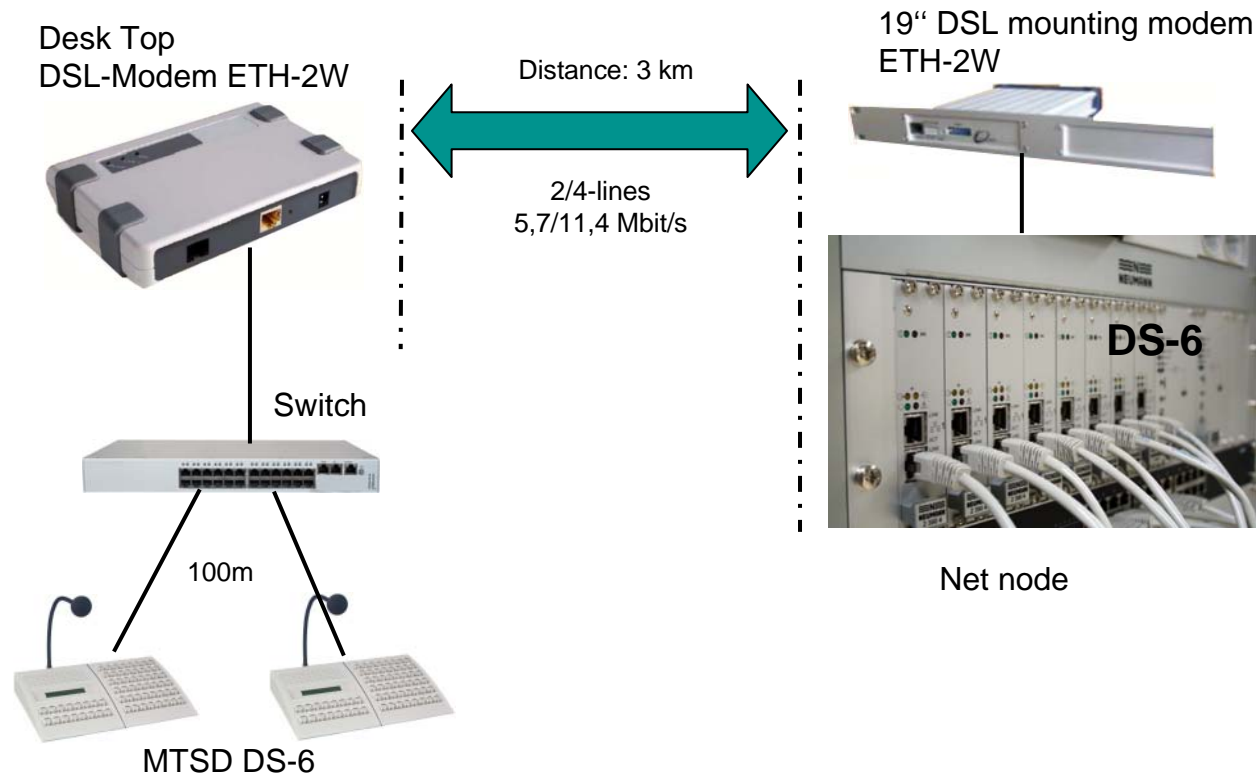


➤ **No „Single point of failure“ – System is still operational**



DS-6
System

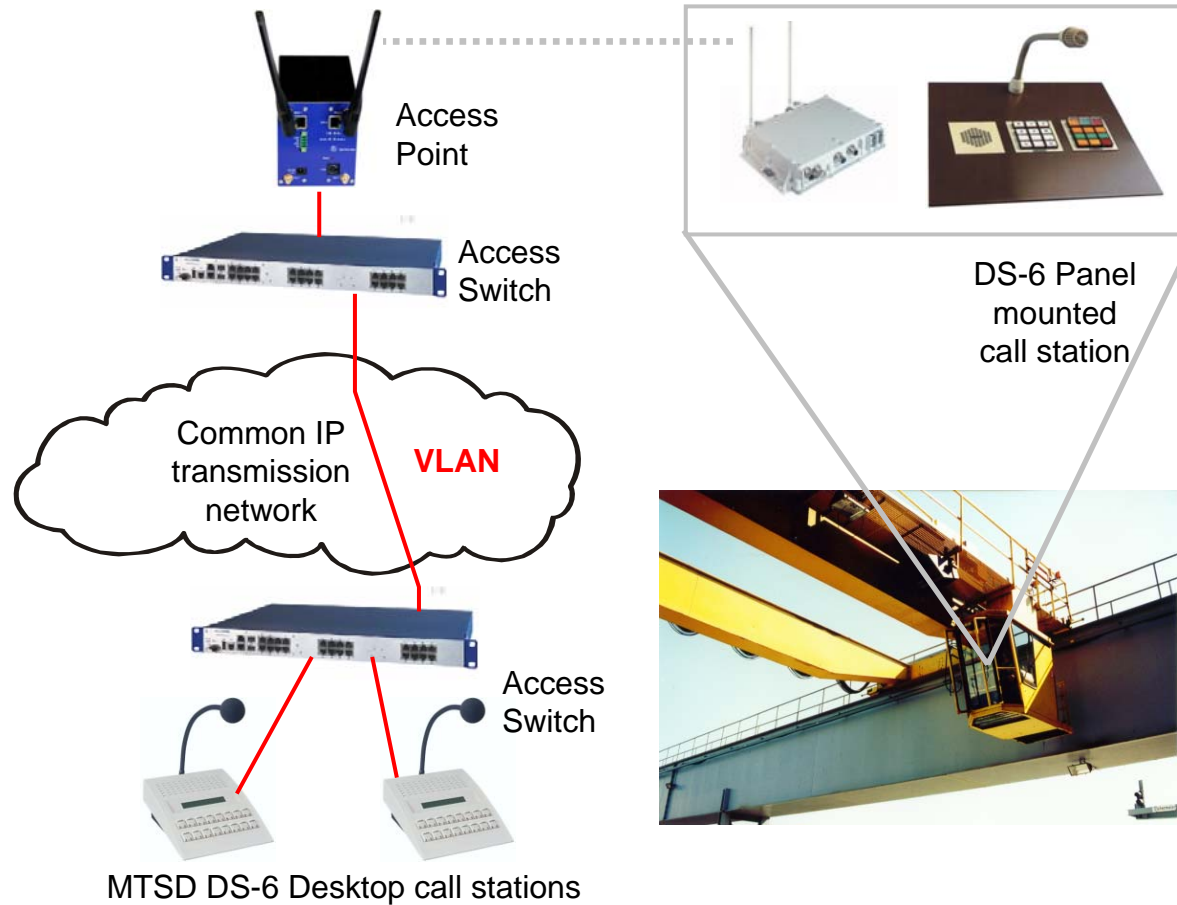
Modem for high distances between DS-6 indoor call stations and the DS-6 node





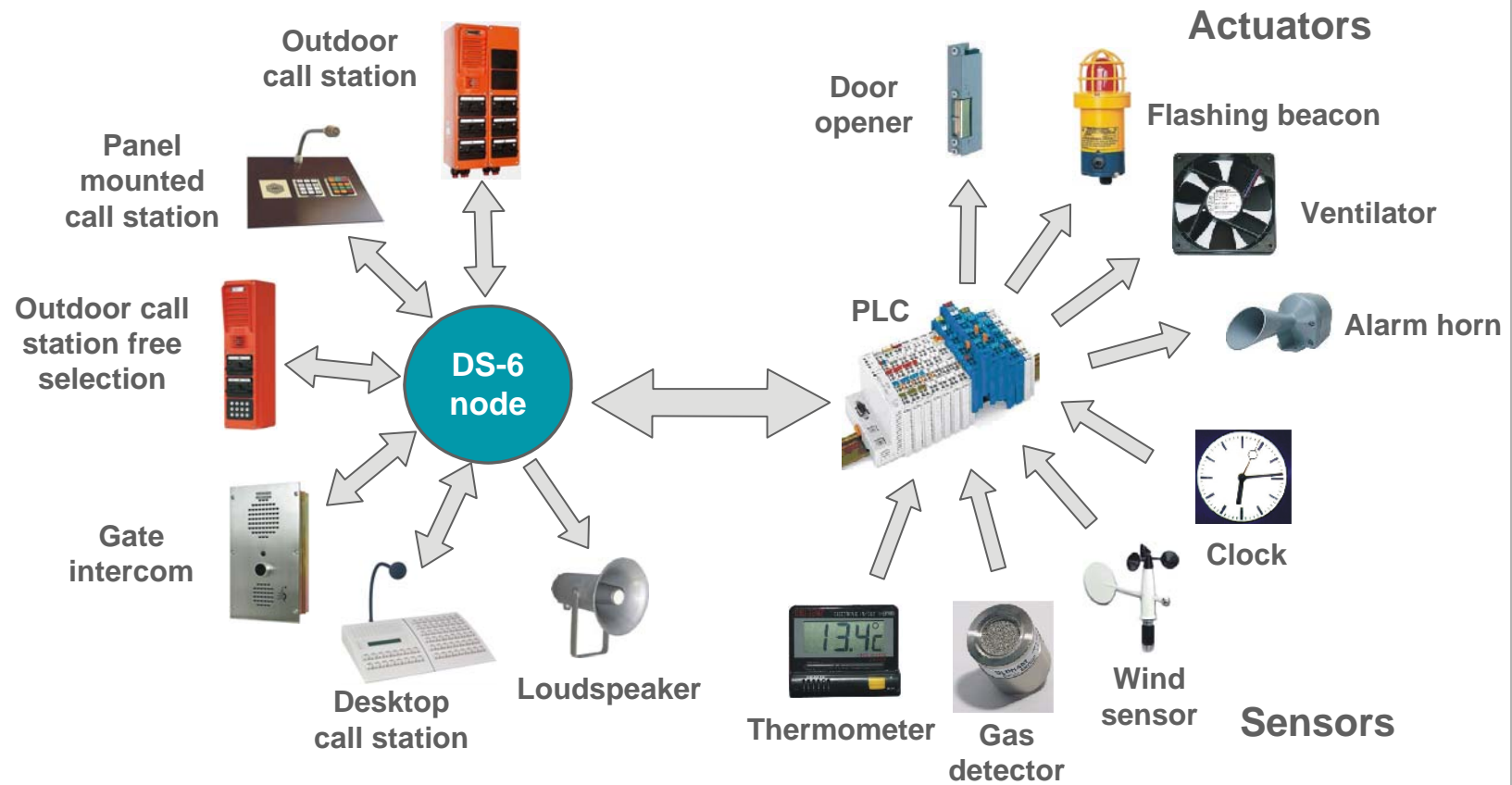
DS-6
System

Crane communication via WireLess LAN in DS-6 systems





Integration of a PLC



Applications with our I/O-Module, example 1

Requirement profile:

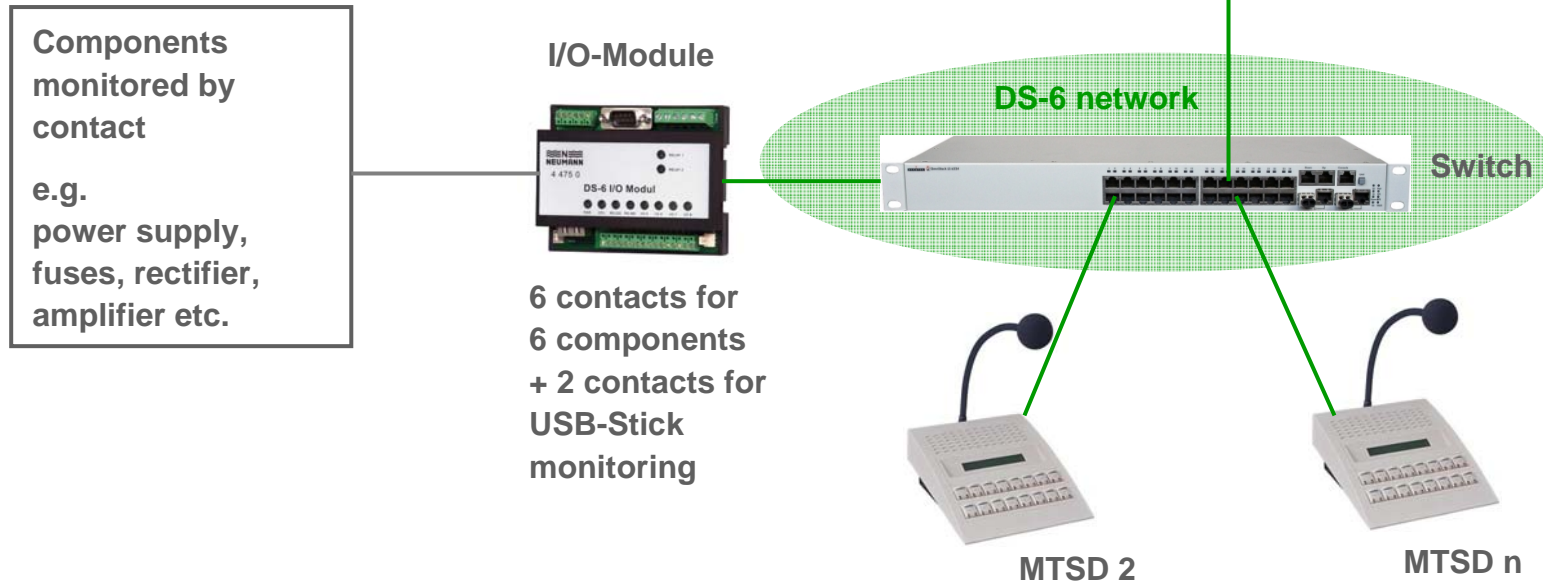
- Failure monitoring of
 - Active components inside the DS-6 network
 - Components outside the DS-6 network
(e.g. power supply, fuses, rectifier, amplifier etc.)
- USB-Stick monitoring
- Display of fault indications at the master call station



Applications with our I/O-Module, example 1

Solution:

- Failure monitoring by means of the I/O-Module via DS-6 network and contacts + USB-Stick monitoring



Applications with our I/O-Module, example 2

Requirement profile:

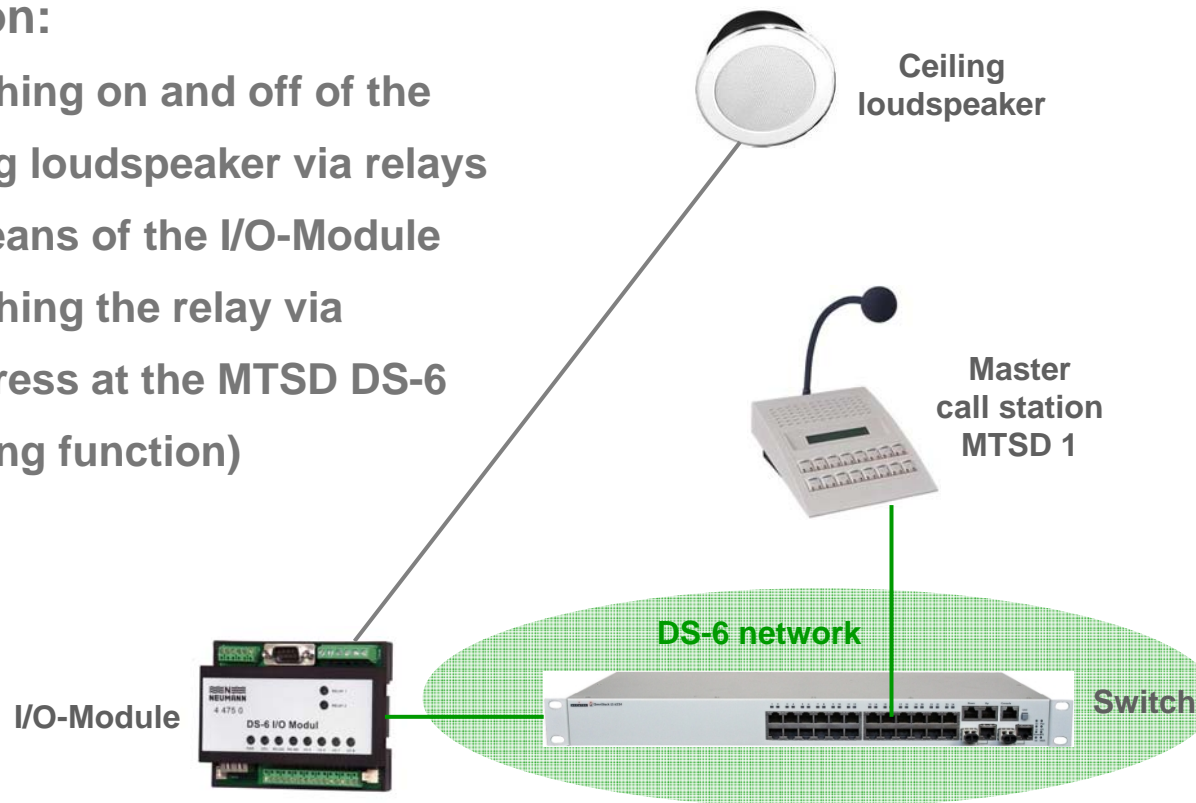
- Use of an additional loudspeaker to the MTSD DS-6 (ceiling loudspeaker)
- Switching on and off of the ceiling loudspeaker via key press
at the MTSD DS-6



Applications with our I/O-Module, example 2

Solution:

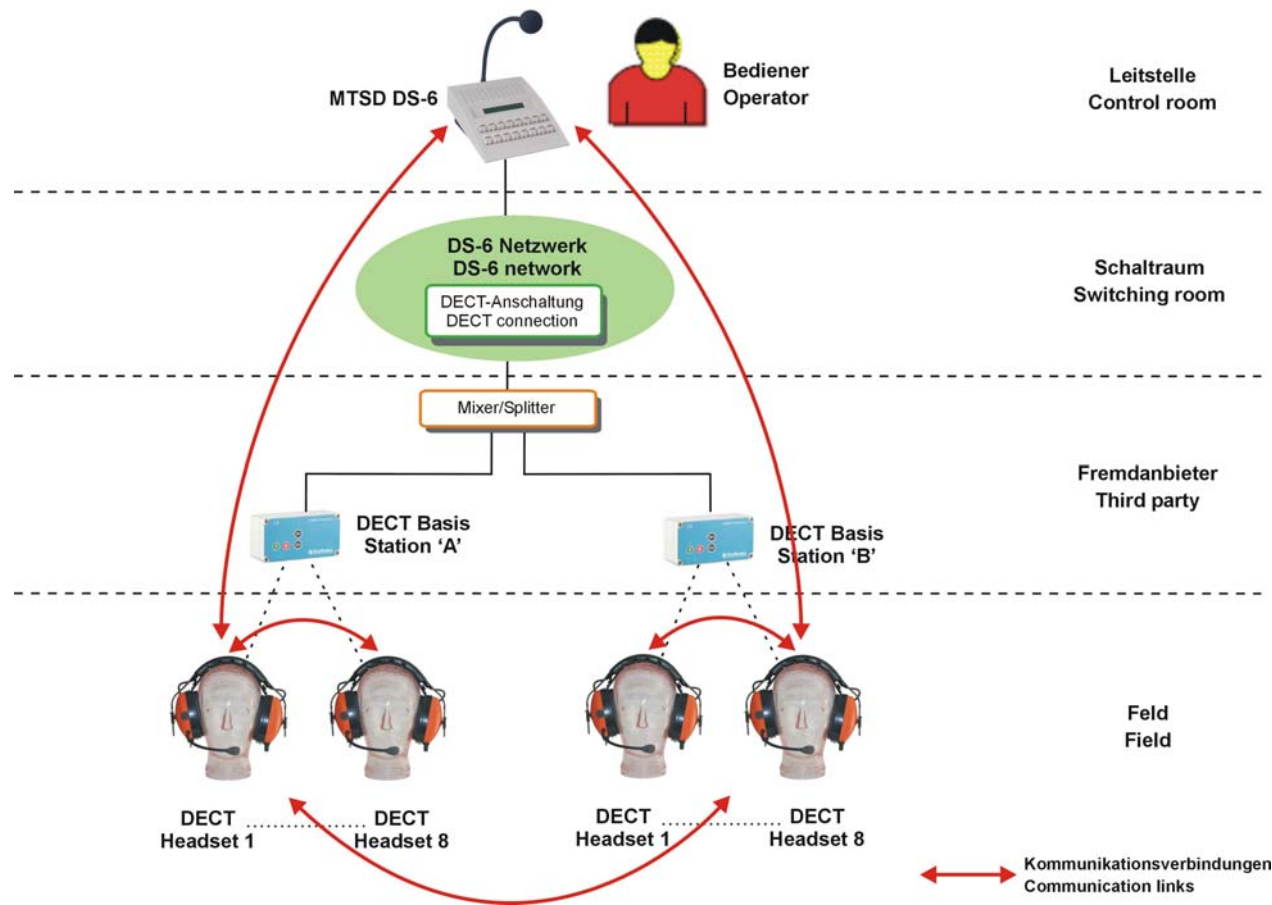
- Switching on and off of the ceiling loudspeaker via relays by means of the I/O-Module
- Switching the relay via key press at the MTSD DS-6 (locking function)





DS-6
System

Connection of a DECT headset system





DS-6
System

Connection of a DECT headset system

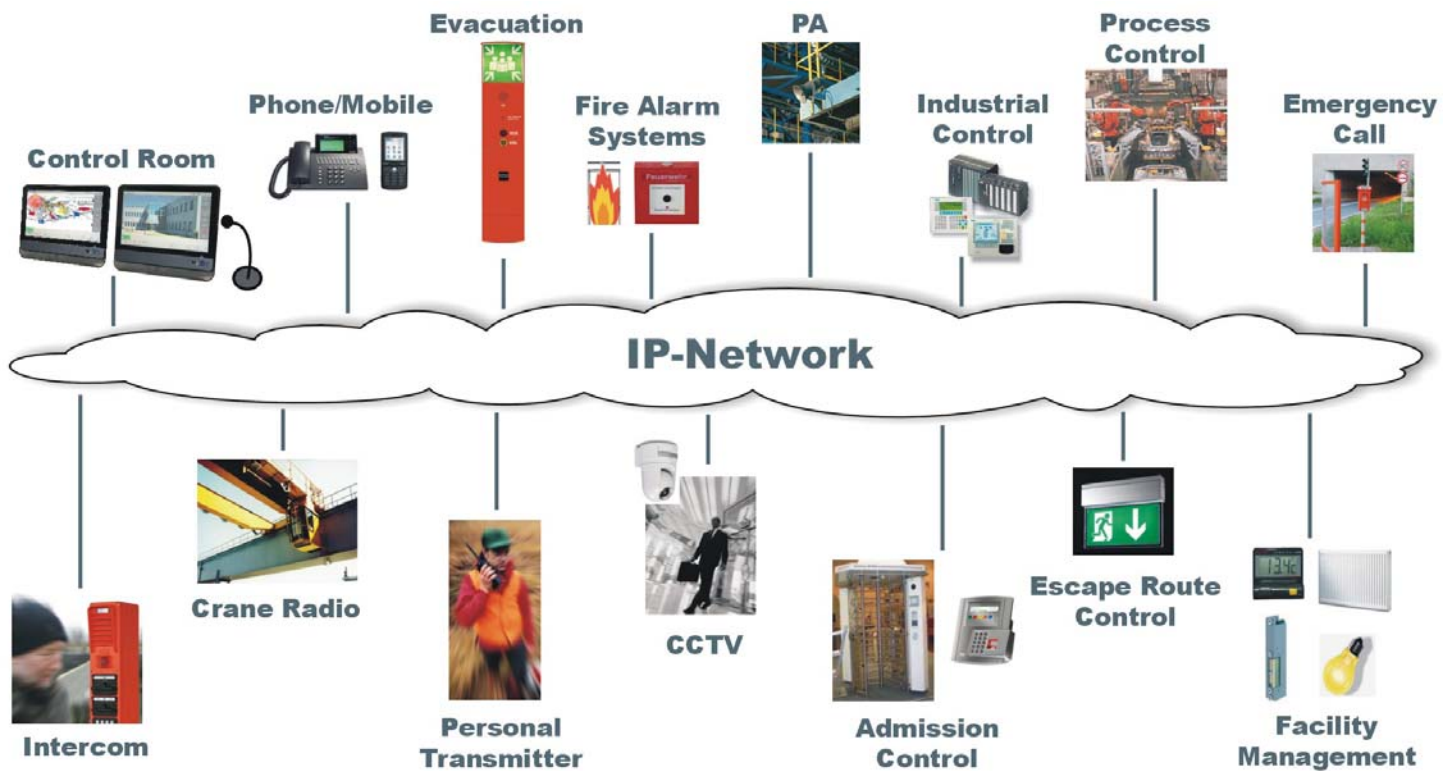
- Handsfree unattended conversation
- Optimal voice communication in noise environments
- Connections headset ↔ control room
- Also in ATEX-Version
- Possible application areas:
 - Chemical industry
 - Glass works
 - Steel works
 - Oil platforms
 - ...

TIMM (Total Information Management) – Integrated system solution

- Innovative IP system
- Combination of different trades
- Use of standardised IP networks
- Central control by the ComServer
- Independent subsystems
- Integration of old and foreign exchanges
- Long term expandability and availability
- Modular system structure
- High reliability due to redundancy
- Integration in ein zentrales Managementsystem (z.B. SNMP)



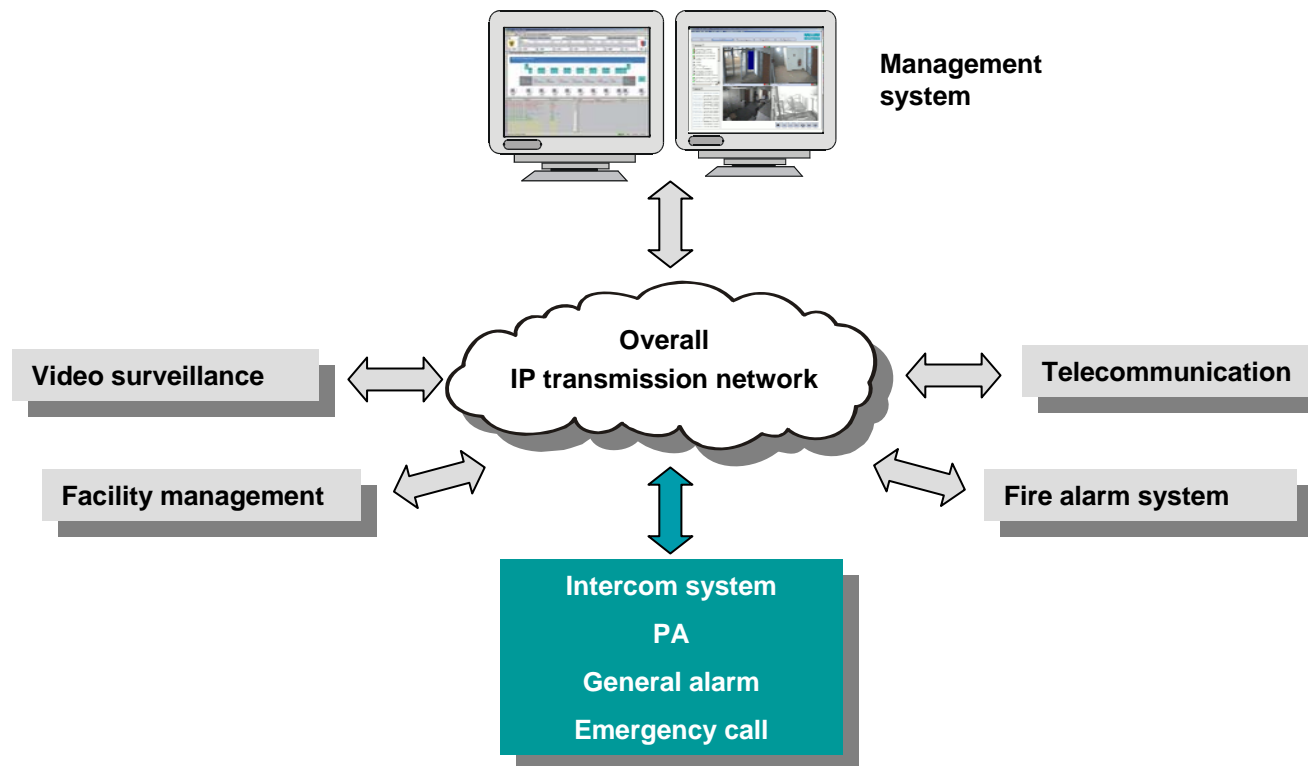
TIMM TIMM (Total Information Management) – Integrated system solution





TIMM

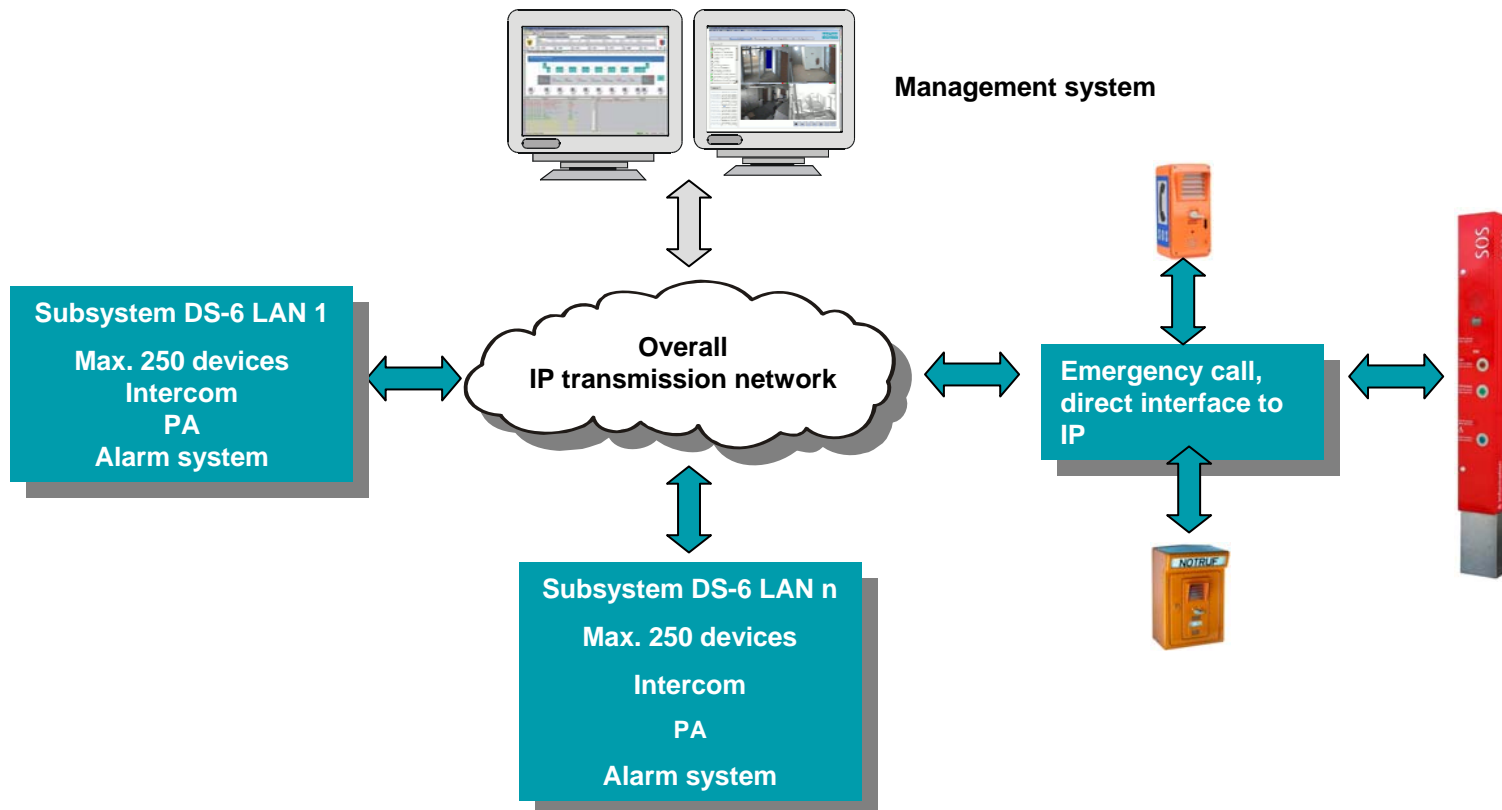
Integration of our systems into existing management systems





TIMM

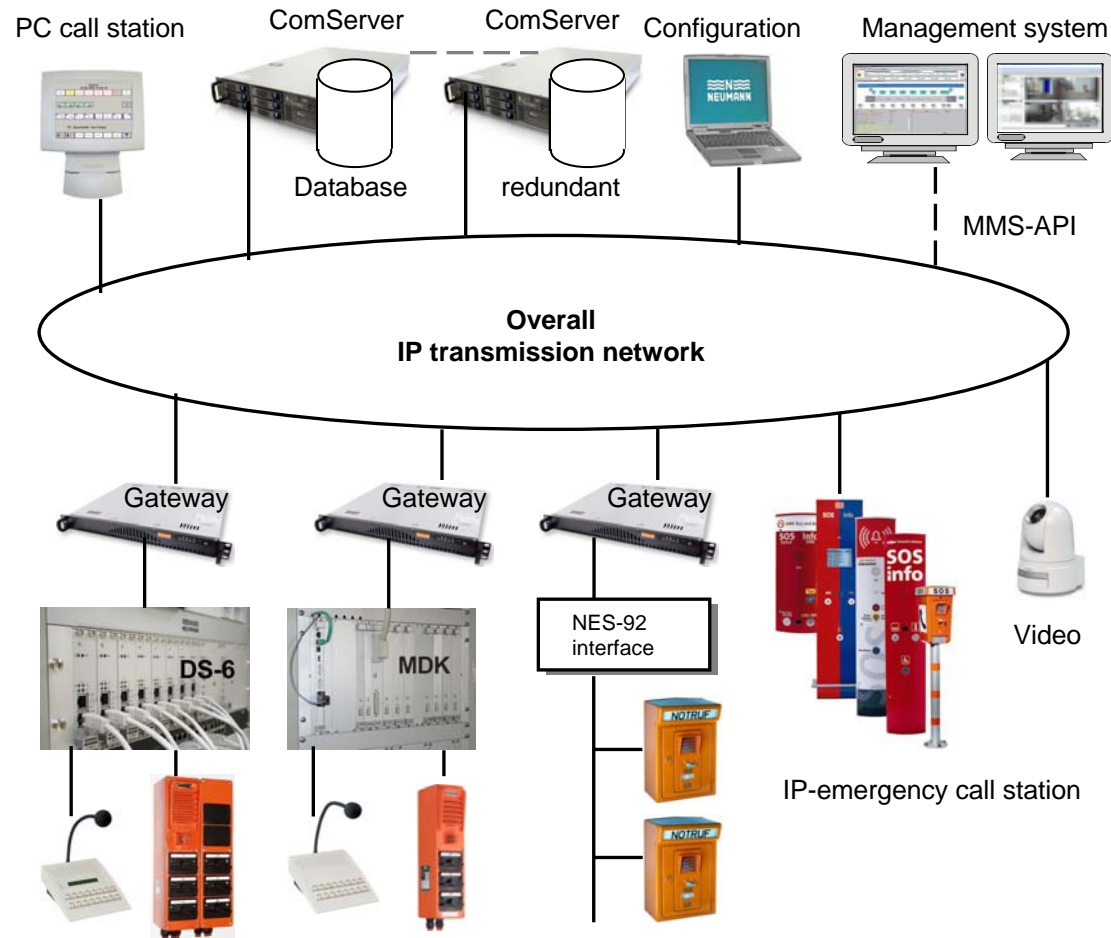
Our IP system in big communication systems





TIMM

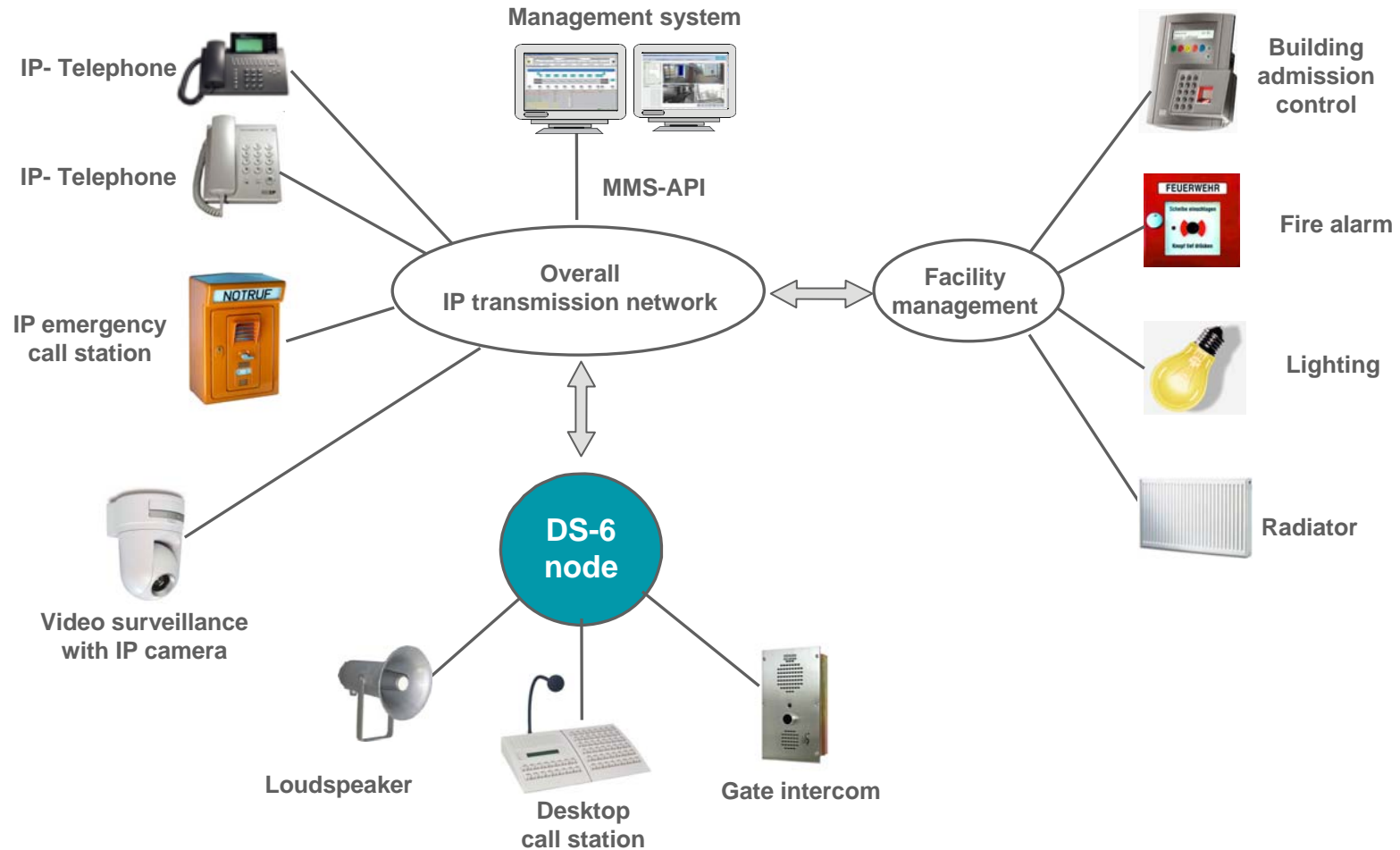
Focus on our systems in standardised IP networks





TIMM

Example: TIMM in connection with facility management





TIMM

Applications for the new complete IP solution

Application areas in general:

- Industry and railway exchanges
- Warning systems
- Evacuation systems
- PA in security areas
- Voice communication with video surveillance that supports ongoing processes
- Voice communication with management systems in control rooms
- Emergency call applications
- Connection to telephone systems



TIMM

Application example 1 for the new complete IP solution

Reference: BP-Lingen – IP based warning system

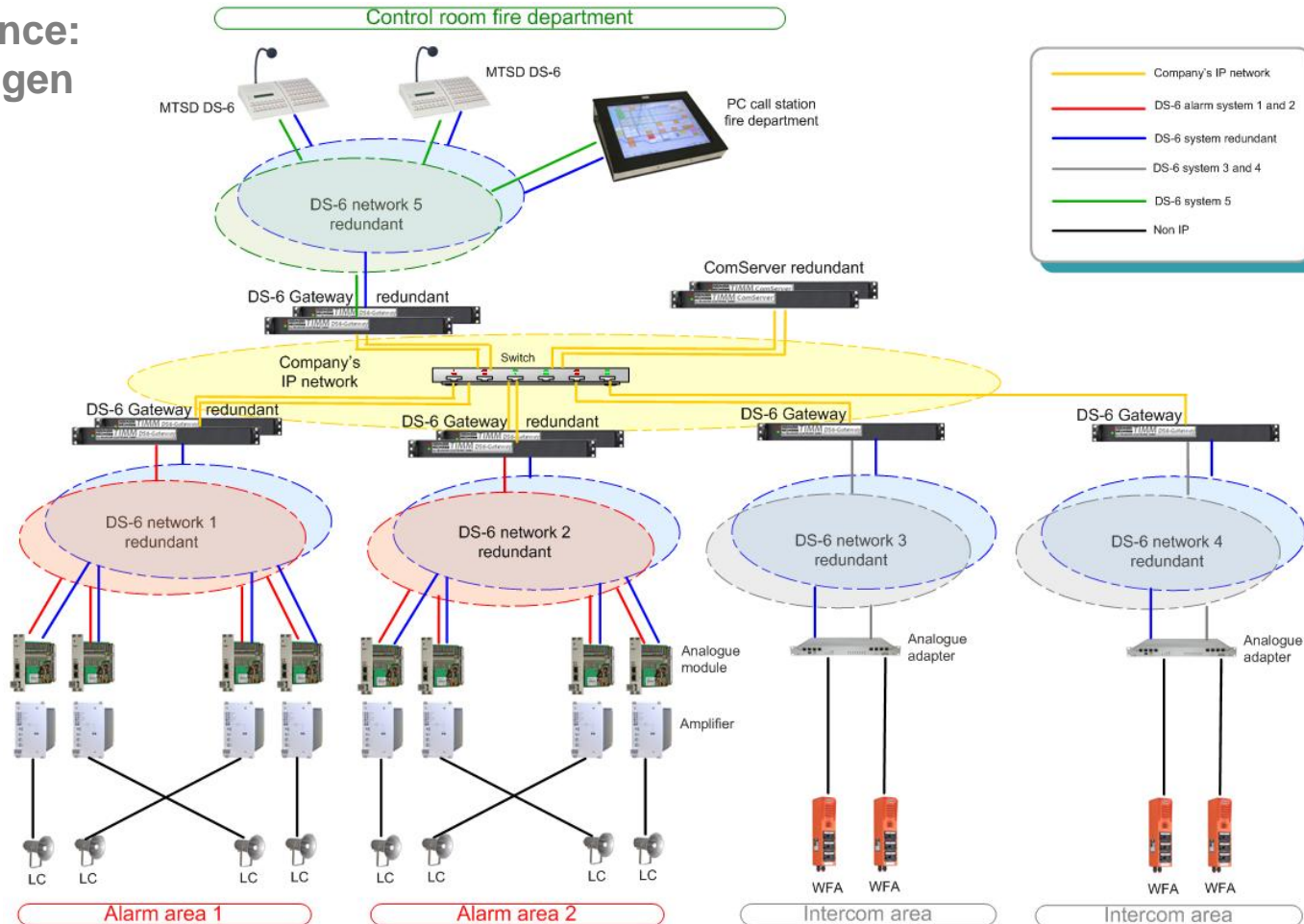
- 10 LANs
- High reliability due to redundancy
- 325 call stations
- 1693 loudspeakers + PA in buildings
- Size of factory premises: 536.000 m²
- According to VDE 0828 resp. EN 60849 and DIN VDE 0833-4
- Integration of existing end devices
- Migration of existing exchanges



TIMM

Application example 1 for the new complete IP solution

Reference:
BP-Lingen





TIMM Application example 2 for the new complete IP solution

Requirements:

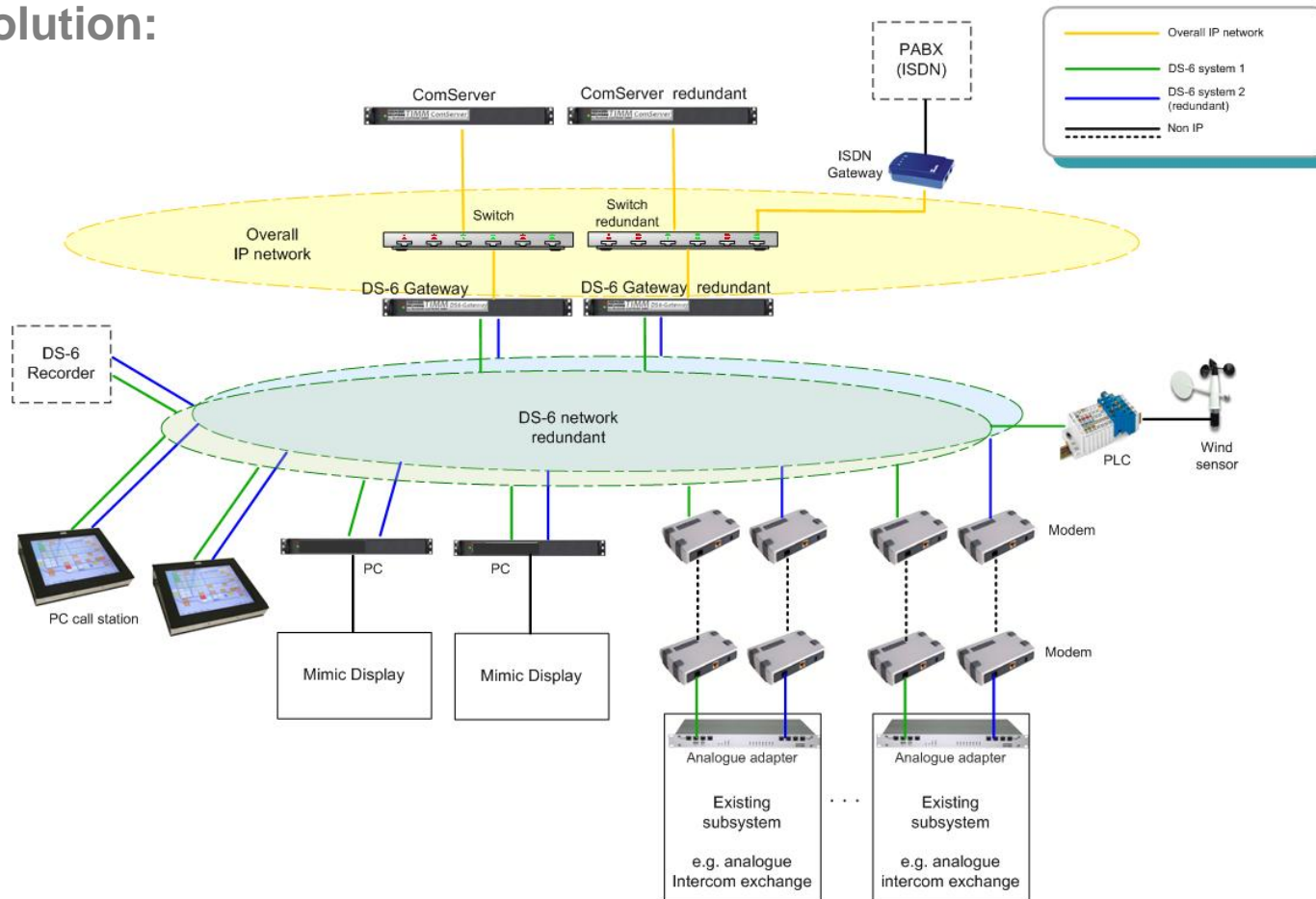
- Modern IP system via existing cable infrastructure and DSL modems
- Centralised alarm control of a complete factory
- Connection of a PLC for controlling of automatic alarms (e.g. Wago, Siemens, Beckhoff, etc.)
- Connection of existing subsystems (e.g. analogue intercom exchange)
- Voice recording
- PC call stations which are configurable by the customer
- Large screen for illustration and controlling of the alarm processes (Mimic display)
- Connection of a PABX
- Redundant system structure



TIMM

Application example 2 for the new complete IP solution

Solution:





TIMM

Application example 2 for the new complete IP solution

Mimic display for illustration and controlling alarm processes:



TIMM

Application example 3 for the new complete IP solution

Requirements:

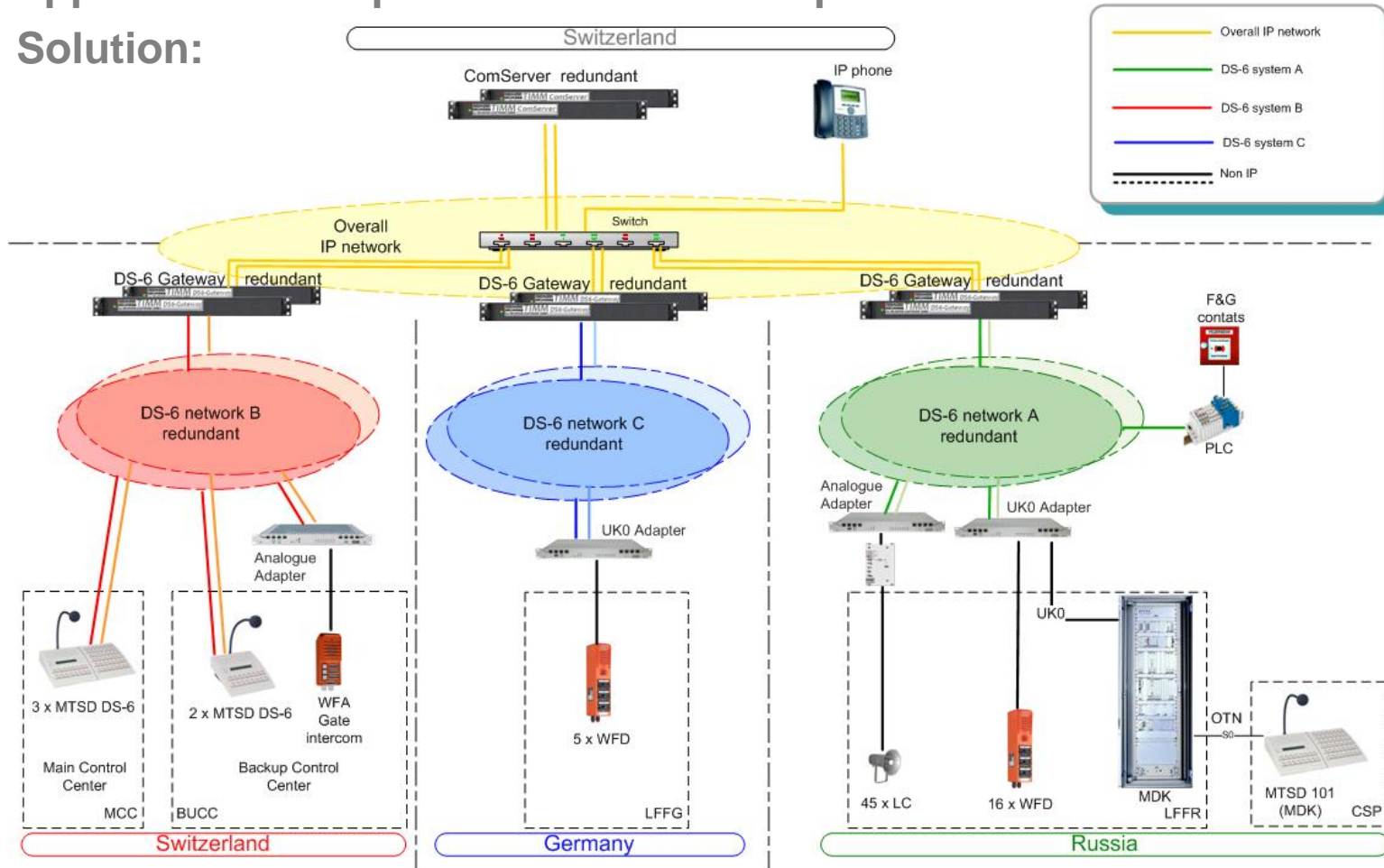
- Connection of 5 areas in 3 countries
- High availability
- High reliability
- Redundant network transnational
- Combination from intercom and telephony



TIMM

Application example 3 for the new complete IP solution

Solution:





TIMM

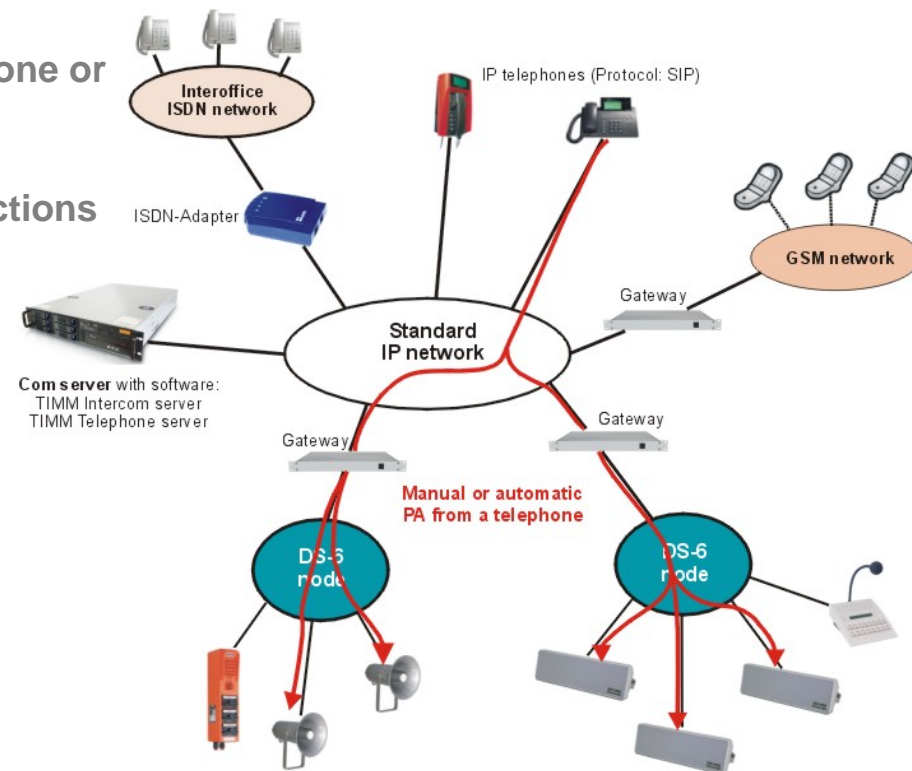
Telephony in connection with TIMM

- Connection telephony and PA
- TIMM Telefon Server: SIP, H323, IAX2
- Standard functions from telephony:
 - VoiceMail
 - Conferences
 - Forwarding
 - Call transfer etc.
- Calls from a phone (dublex communication) to DS-6 call stations (intercom) or to loudspeaker circuits (PA)



TIMM PA from a phone

- Manual and automatic PA
- Speaking from a phone directly to one or more loudspeaker circuits
- Internal and external phone connections possible (even from mobile phone)
- Special feature:
acoustic signal for connections
- Retrieving a saved text or tone and output to the destination

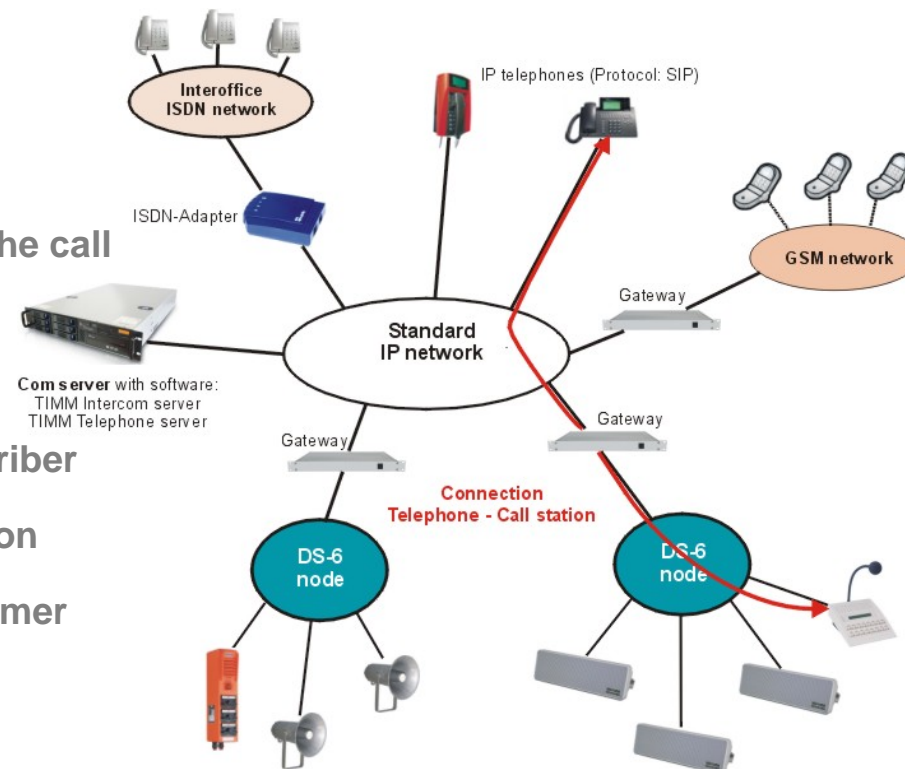




TIMM

Connection phone – call station

- Connection between phone and DS-6 call station by DS-6 gateway
- Call controlling by the keys from the call station
- Termination of the call
 - by hang up the phone subscriber
 - by delete key at the call station
 - by request by a configured timer

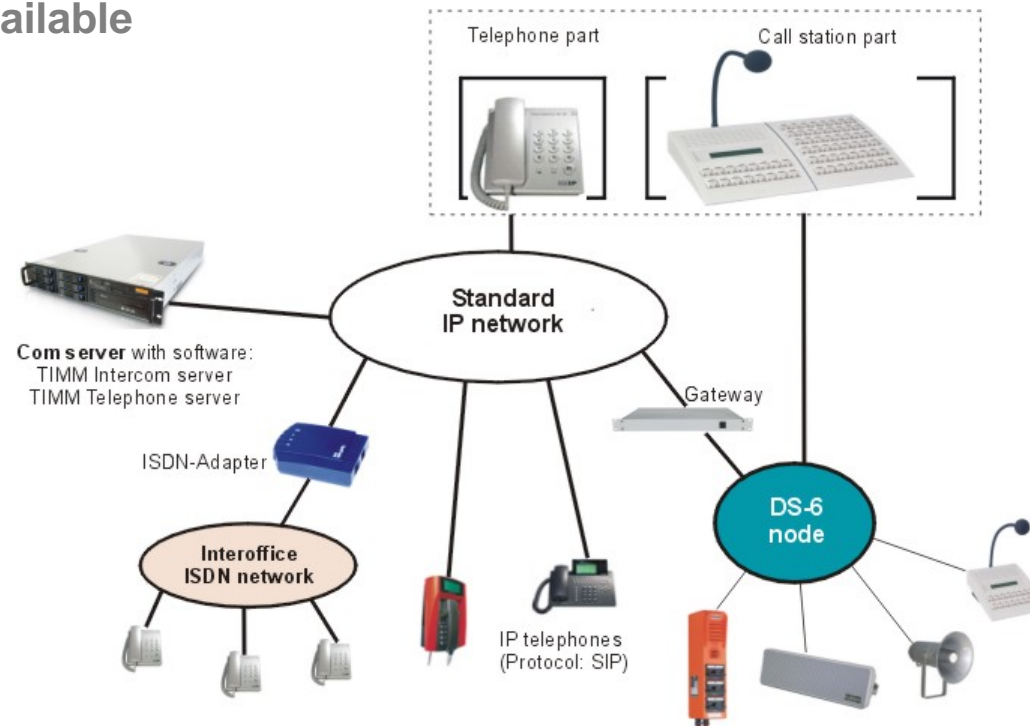




TIMM

Control panel

- combination of phone part and call station part
- Functions from telephony and intercom at the keyboard from the call station available





TIMM

Retrieval of recorded alarm announcements from a phone

- Recording and saving of alarm announcements in TIMM Telefon Server
- Retrieval of the recorded alarms from a phone
- Selection of a text (alarm) via voice menu

Speech boxes

- Recording of manual announcements at a call station
- Saving these announcements in speech boxes
- Output of the announcements at the own call station or other defined destinations



Communication and information systems in heavy environments

