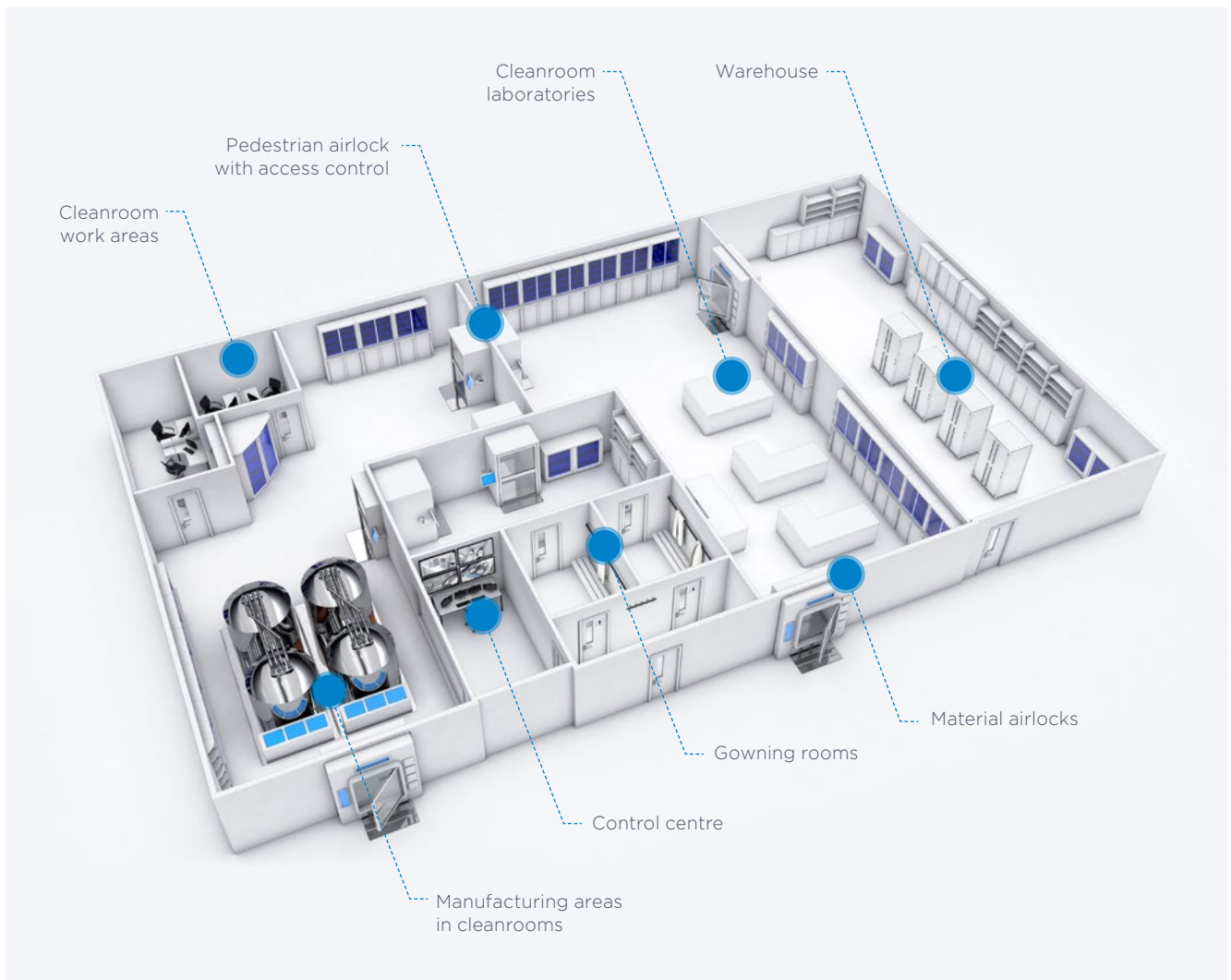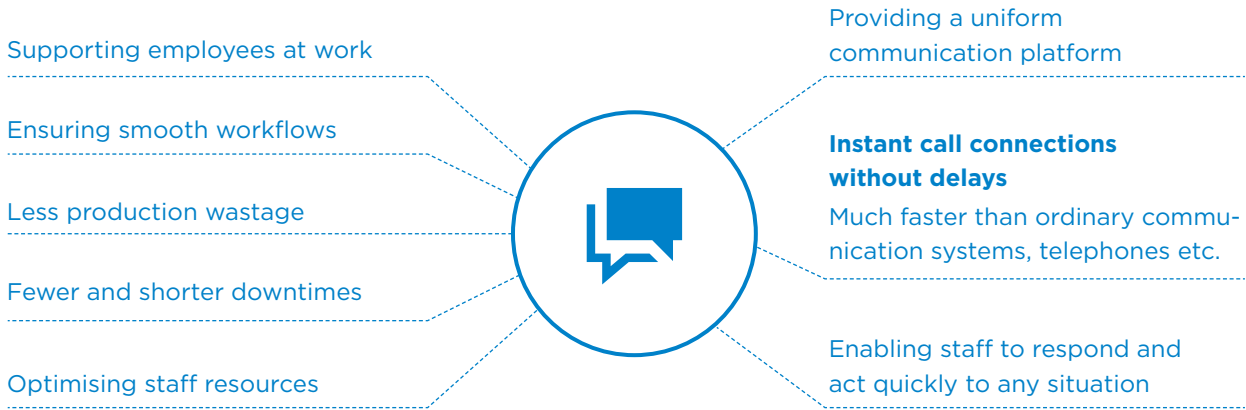commend

COMMUNICATION SOLUTIONS FOR CLEANROOMS

Pharmaceutical Industry / Semiconductor Manufacturing / Medical Facilities and Laboratories

OPTIMISED TEAM COMMUNICATION
BOOSTING EFFICIENCY AND PRODUCTIVITY

Clear, intelligible and ideally hands-free communication is essential in industrial environments. Keeping in touch with team members in remote locations or coordinating workflows on the fly is just as important. This saves valuable time. From Intercom stations and smartphone apps to loudspeakers, from integrated radio and telephony to optimised speech intelligibility through background noise suppression: Commend's communication solutions are designed specifically to simplify and speed up everyday workflows.

Supporting employees at work

Ensuring smooth workflows

Less production wastage

Fewer and shorter downtimes

Optimising staff resources

Providing a uniform communication platform

Instant call connections without delays
Much faster than ordinary communication systems, telephones etc.

Enabling staff to respond and act quickly to any situation

Cleanroom laboratories

Warehouse

Pedestrian airlock with access control

Cleanroom work areas

Material airlocks

Gowning rooms

Control centre

Manufacturing areas in cleanrooms

Cleanroom station wall-mounted

Cleanroom station with desktop-kit

Cleanroom stations

Desktop-based and wall-mounted stations

Telephone systems, call forwarding to public telephone networks

Apps for mobile (Ex-certified) devices

Integration of mobile radio (DMR, TETRA, Analogue)

Stations for doors, gates and barriers

IP-based amplifiers and cleanroom loudspeakers

IP-based loudspeakers

Lift stations, Intercom modules for lifts and special constructions (integration into workspaces/machines)

ONE
Platform

Central overview and control

Emergency and Threat Response System (ETRS)

Communication / Emergency Calls in Cleanrooms

Communication for offices, warehouses, …

Mobile communication

Integration of third-party systems (video, VMS, BMS, etc.)

Monitoring inputs, controlling outputs

Access control and perimeter protection

Public Address, alarms, announcements, paging, etc.

Emergency call support for lift facilities

NETWORKING
Systems of multiple sites can be networked and managed from a central location.

Interfaces and Technology Partners

CONNECTION PERFECTION

Production areas in industrial environments should not be 'communication islands'. Commend solutions help to keep them in touch with the 'outside world'. From the warehouse to the office, everyone is free to communicate and exchange essential information and instructions. There are many other ways that companies can benefit from Commend solutions as well.

Vehicular entry and exit gates

Reception areas and welcome points

Access control for security critical areas

Lift emergency call points that ensure compliance with legal requirements

and many more

COMMUNICATION AND SAFETY FOR STERILE AREAS

The security and cleanroom standards in the laboratories and production facilities of the pharmaceutical, semiconductor and food industries are extremely high and subject to stringent technical requirements. While this is understandable, it also makes on-site communication difficult. Commend develops technically advanced communication solutions that integrate seamlessly into the workplace and help to boost efficiency while improving occupational safety.

CONFERENCE CALLS

These provide a quick-fire way for teams to coordinate along production lines and even in large areas for more efficient collaboration. Call participants can be pre-defined or selected as needed, with the option of hands-free OpenDuplex® or Simplex connections.

PERFECT SPEECH QUALITY

Hands-free communication works flawlessly even in extremely noisy environments. This is made possible by a well-balanced combination of background noise suppression, high sound pressure and automatic volume adjustment (IVC – Intelligent Volume Control).

INSTRUCTIONS DELIVERED

Public Address announcements can easily be targeted to individual persons, teams or the entire work-force to provide them with important information and instructions. Visual and acoustic signals urge employees to pay attention to the subsequent announcement.

FLEXIBLE CALL FORWARDING

Whenever the central control desk is unattended or unavailable, incoming calls are forwarded automatically in a pre-defined order of priority (Intercom stations, telephones, mobile devices). Calls can also be forwarded to multiple recipients simultaneously to ensure they are answered as quickly as possible.

PLATFORM WITHOUT LIMITS

Commend solutions integrate all means of communication into a consolidated hub platform. This allows you to use a stationary Intercom station to link up with a mobile radio network, connect to mobile devices or make announcements over the Public Address system. Integrating telephone systems is no problem either.

Stations for Ex-Zones? You can find them in our solution catalogue „INDUSTRY".

Designed for
EN ISO 14644-1 Class 1–9
Hygienic design to
fulfill GMP Targets.

Instant connections
Much faster than any other system
(e.g., telephones).

Handsfree communication
No need to interrupt your work.

Voice Control enables handsfree
interaction.

Omnidirectional electret microphone
supports up to 7 m speaking distance.

Closed-sealed membrane surface
IP 66 protection rated.

Version conforming to IEC 60601-1
(2nd Edition) with anti-bacterial sealing
membrane.

Surfaces are designed to
withstand strong cleaning fluids.

A specially developed, imprinted
loudspeaker surface enables perfect
speech quality despite the device being
fully sealed.

Flat Design
Version for flush-mounting
into cleanroom walls.

Always available
Automatic function self-monitoring for all
system components (loudspeakers, micro-
phones, lines, etc.).

Flat mounted – In wall
Special flush-mount box for
cleanroom walls enables flat
mounting.

Flush mounted – In wall
Standard version with flush-
mount box or surface-mount
box.

Surface mounted – On wall
Version for retrofitting, with
special stainless steel frame for
sealing.

Desktop Kit
Enables use of stations on
desktops in work areas.

– Version with 3,5" TFT-display to
  display video streams.
– Version with LCD graphic display,
  128 × 64 pixels for menu navigation
  and contact search.
– Ethernet with PoE or 2-wire cabling
  IP-Protocols (SIP or IoIP)
– 2 relay outputs (switching contacts)
  and 3 inputs (floating contacts)
– Additional equipment available
  (desktop kit, loudspeakers, handset)

Materials, membrane and displays are
designed to withstand strong cleaning
fluids.

The devices have been tested on-site at
pharmaceutical companies and hospitals
using disinfectants and cold sterilisation
liquids, such as Biguacid-S, Spor-Klenz,
Antiseptica-Kombi, Descogen® Liquid,
mikrozid® AF liquid, and others.

MAKING WORK AREAS SAFER

Intercom systems by Commend help to improve occupational safety. It all starts with clear, easily intelligible communication that prevents misunderstandings and helps to avoid accidents. In case of an emergency, users can call for help quickly and easily with the nearest Intercom station or a mobile device. This helps to ensure the safety of working staff with loud, clear speech quality that is a hallmark of Commend systems and enables perfect intelligibility even in extremely noisy environments.

It is said that "seeing is believing". Visualisation-based Commend solutions with floor plans and video displays help staff to stay on top of things, allowing them to quickly trace the source of alarm calls and prevent false alarms. Connections to internal as well as external help and rescue forces can be set up at a moment's notice. After all, there is a lot at stake in an emergency, as any (further) mistake might have fatal consequences.

Avoiding accidents through enhanced communication

A reassuring feeling for employees

Fewer and shorter downtimes

Responding to emergencies quickly and correctly

Helps to limit the negative effects of accidents
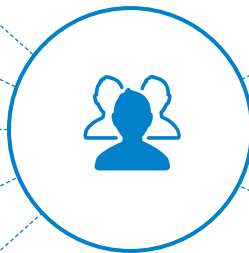
Clear instructions, clear communication

Emergency and Danger Response System (EDRS)

EMERGENCY DANGER RESPONSE SYSTEM (EDRS)

INSTANT REACTION IN EMERGENCIES

Disruptions or emergencies, incidents ranging from harmless to life-threatening – in industrial environments, there is danger lurking everywhere. Whether it's caused by human error or a technical fault, an emergency call for instant, professional help, as every second counts. Communication systems by Commend raise alarms and provide instant overviews of ongoing situations. They initiate crucial processes, support supervisors and establish communication connections to internal and external support and rescue services.

PREVENTION

Clear, simple and easily intelligible communication prevents misunderstandings and helps to avoid accidents.

ALARMS
Time-saving communication
Making an emergency call is quick and easy with Intercom stations, push-buttons or mobile devices, either manually or automatically (e.g., via sensors).

VERIFICATION
Reacting quickly
Control Room operators can keep an eye on things, thanks to on-screen visualisations and video displays.

Alarms can be verified via voice communication to eliminate costly false alarms.

REACTION / DE-ESCALATION
Reacting correctly
Instant connections to internal and external intervention and rescue services enable the exchange of essential information.

ACTION SEQUENCE
Situation-specific
If required, the system can perform a series of automatic actions in a pre-defined sequence.

Announcements can be broadcast using pre-recorded messages and targeted to specific PA zones (if required, with different messages for individual zones)

Activation of visual and acoustic alarms

Control of subsections such as doors, barrier gates or lighting

ACTION PLAN
Stress relief
Depending on the situation, the solution supports control centre staff in following action plans. This helps control desk operators to take the required measures while keeping stress and time pressure at manageable levels.

AFTERCARE AND PREVENTION

ANALYSIS AND EVALUATION OF EXISTING ACTION CONCEPTS

The Commend system can create a seamless log documenting each event. If required, calls can be recorded along with the corresponding video stream. This enables a detailed analysis and an impartial review of the events. The system provides instant details about what has happened, who responded and how fast. Based on this information, existing reaction plans can be evaluated and revised to include preventive measures for the future.

ASSISTANTS FOR OVERVIEW AND CONTROL

The control desk is the first point of contact, the hub where all lines converge. It is the main point of coordination, monitoring and supervision. Fortunately, supervising staff at the control desk won't have to rely on their ears alone. They have Commend's visualisation-based solutions at hand, which provide on-screen floor plans and video displays to help them assess the situation quickly and accurately. In case of an emergency help call, the Commend Emergency Danger Response System is standing by to assist staff in taking the necessary steps. If required, they can do so by following a pre-set action plan, which allows several actions to be performed automatically.

Action plans
Depending on the situation, the solution supports control centre staff in following action plans.

Announcements and PA
Audio management with zone selection, live announcements and playback of pre-recorded messages

Pre-recorded messages can be connected and played back as needed.

Support for scheduled or situation-specific announcements (system events).

Plans, icons and buttons
Floor plans of buildings and building sections are shown as 3-D/2-D visualisations. System components are indicated in the form of icons. Special buttons provide instant access to functions for call initiation, announcements or video activation.

The icons on the floor plans make it easy to identify incident locations. To make things easier for the operator, maps and plans relevant to the incident are presented automatically.
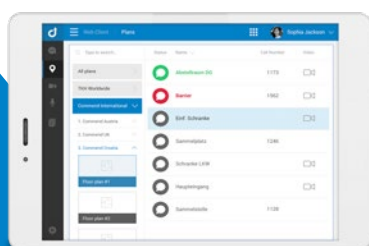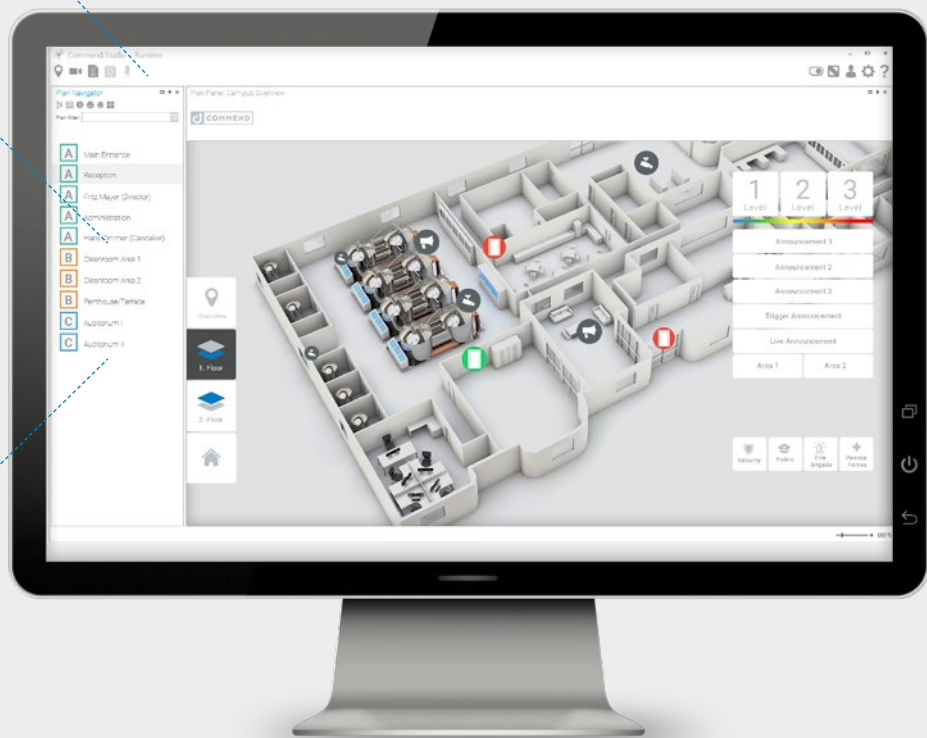
MOBILE CONTROL DESK

Thanks to the Studio Web Client, there is no need to install software locally. All the required data can be accessed in a flash using just a notebook or tablet with a browser.

STUDIO

Studio is a powerful family of software modules for professional control desk management. All control desk functions are displayed on one or several monitors. Interactive icons (on-screen symbols) represent calls and error or alarm messages; they change colour depending on their level of urgency. Additional windows provide other essential details, such as action plans or help texts. Customisable status windows provide operators with an instant overview of the entire ComWIN system along with relevant details.

Video
Single or multiple video sources can be brought on screen automatically to complement voice calls.

Logging and evaluation
All system events are logged seamlessly for further processing and evaluation. Reports can be scheduled to be e-mailed automatically to pre-defined recipients.

Visualisation
ComWIN

Video integration
ComVIDEO

Logging
ComREPORT

Audio recording
ComREC

Time-scheduled planning and control
ComSCHEDULE

CONTROL DESK
DUETTO

This control desk station supports users in handling calls, putting all relevant functions at their fingertips. Incoming voice calls are complemented by live video and CCTV images. Using the web interface you can arrange and adjust the user interface to support you in your everyday work. Configure your own GUI layout, place direct dialling buttons where you need them, and keep all your frequently used functions at your fingertips. Best of all, you are not limited to a single page, as you can extend your personal interface layout to several navigation levels.

Smart and compact
Touch screen for fast access to features and functions
(making calls or PA announcements, or controlling equipment)
Optional add-ons: Integrated video camera; handset.

CONTROL DESK
ID5

The high-end Intercom stations serve as digital doorkeepers, signposts and conductors of concerted communication. For this purpose they come packed with comprehensive competence and they are the world's first Intercom stations with emergency mode.

Control desk EE 380
Modular design – base unit can be enhanced with an add-on gooseneck microphone, handset, extra loudspeaker add-on and up to four direct dialling modules.

Direct dialling modules with multi-functional LEDs for status indication

Control desk Conductor
Modular Design – base unit (TFT-video display or LCD-display) can be enhanced with an add-on gooseneck microphone, handset and up to three direct dialling modules.

Direct dialling modules with multi-functional LEDs for status indication

KEEPING IN TOUCH WITH TEAM MEMBERS

**Intercom Client
Android**

Calls to Intercom stations
Keypad for number dialling
or for use as direct dialling buttons

**Instant direct connections to
internal or external emergency
and rescue services**
via direct dialling buttons

Calls to mobile and landline networks

Conferences
Joining or set up conference
calls is a breeze.

Live announcements
via PA system, including
zone selection

**Announcements based on
pre-recorded voice messages**

Subsection control
Outputs enable the control of
external equipment such as door
actuators.

MOBILE SOLUTIONS

INTEGRATED MOBILE RADIO

MULTI-SITE COMMUNICATION ACROSS DIFFERENT PLATFORMS

Commend provides the unique ability to connect mobile radio and Intercom stations across multiple sites and technologies. This way, the Commend solution does away with the limitations of mobile radio so it becomes a part of the overall communication platform. As a result, employees with stationary Intercom stations can always reach colleagues who are 'on the go' (and vice-versa) via mobile radio. This makes coordination among co-workers easier, more flexible and more efficient.

**Calls to and from
Intercom stations**

**Support for
DMR, TETRA and Analogue-FM
radio standards**

**Calls to subscribers in
remote radio networks**
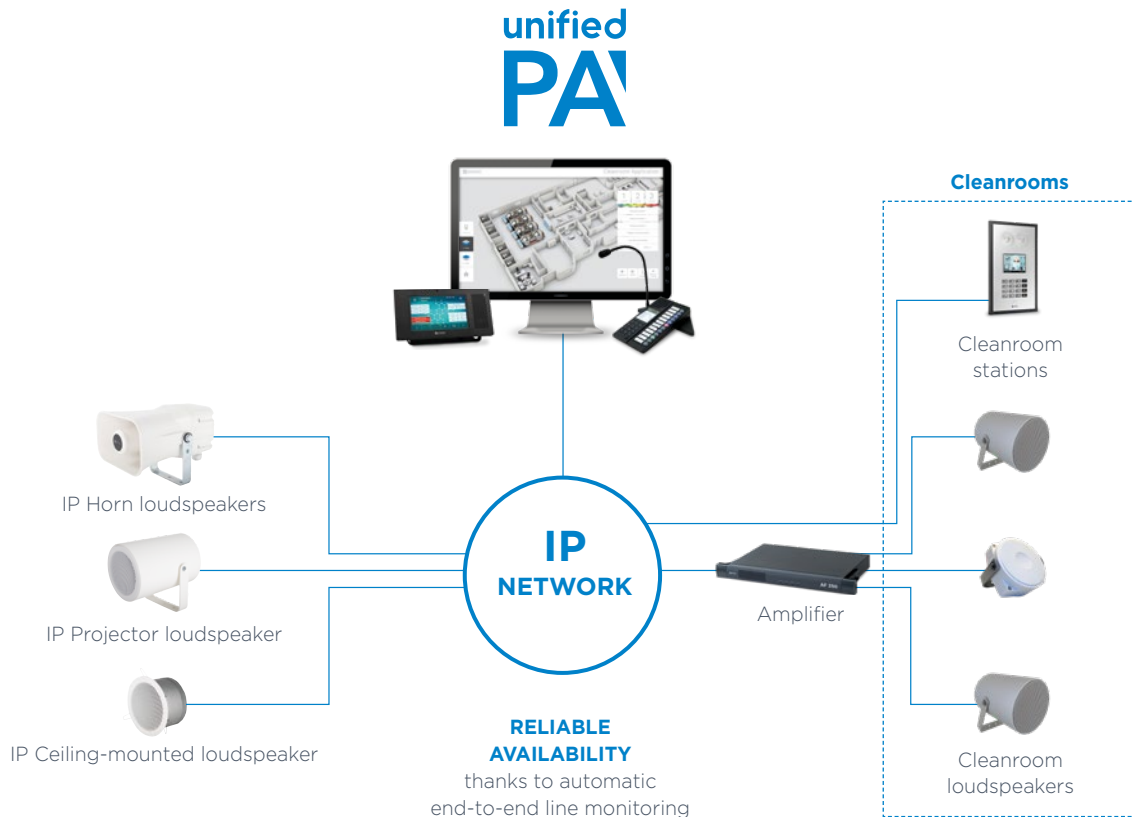
INFORMATION THAT'S LOUD, CLEAR

Commend Public Address solutions enable the reliable, targeted communication of information to employees, from issuing production-specific instructions to providing security advice or paging specific persons. In an emergency, Public Address serves as means of issuing alarms, and in extreme cases it helps to support evacuation procedures. To ensure the safety and timely alerting of employees, critical information must reach all intended recipients loud and clear.

unified
PA

Cleanrooms

Cleanroom stations

IP Horn loudspeakers

IP Projector loudspeaker

IP Ceiling-mounted loudspeaker

IP NETWORK

RELIABLE AVAILABILITY
thanks to automatic
end-to-end line monitoring

Amplifier

Cleanroom loudspeakers

ANNOUNCEMENTS – INDIVIDUAL, AUTOMATIC OR BOTH

In addition to live announcements, pre-recorded announcements can be played back at the push of a button. Within the Commend Studio application environment, individual voice message clips can be combined played back as a sequence.

TARGETED PLAYBACK

The target areas for Public Address playback can be sectioned into zones, which can be selected individually at the push of a button or combined as needed for specific announcements. In Studio, these zones are marked out on the floor plans and can be selected and combined with the mouse or a touch gesture.

CRYSTAL CLEAR AUDIO QUALITY

Superior speech intelligibility, extra high volume capacity, 16 kHz eHD Voice and smart functions such as IVC (Intelligent Volume Control) make Commend Public Address Solutions stand out from the crowd.

IP-AMPLIFIERS AND CLEANROOM-LOUDSPEAKERS

– Scalable solutions – from small to super-sized, decentralised to centralised, serverless to networked across multiple sites.

– End-to-end self-monitoring – permanent verification of loudspeaker, device and server connections.

– Fully IP networkable – with IoIP and SIP connectivity.

– Highly efficient class-D Amplifiers.

– Compact design and versatile installation options (installation in rack or on walls, behind panels or ceiling, etc.)

125 – 250 – 500 Watt IP Amplifiers
AF 125H – AF 250H – AF 500H | Hybrid IP (IoIP/SIP), Class-D amplifier, robust metal housing for 19"-Racks (1U), 70 V / 100 V loudspeaker output
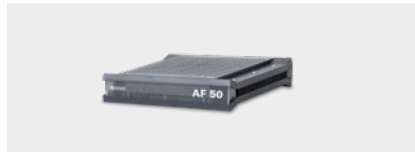
50 Watt IP Amplifiers
AF 50H | Hybrid IP (IoIP/SIP), Class-D amplifier, suitable for installation in 19"-Racks or wall-mounting, 70V / 100V / 8 Ohm loudspeaker output

20 Watt IP Amplifiers
AF 20H | Hybrid IP (IoIP/SIP), Class-D amplifier, suitable for wall-mounting or installation on a DIN rail bracket, 4 / 8 Ohm loudspeaker output

CR-6T
6 W cleanroom loudspeaker, max. SPL 85 dB, IP67

CAP-15 WCR(T)
15 W cleanroom sound projector, max. SPL 85 dB, IP 55

BPF-560CR(T)
15 W ceiling-mounted cleanroom loudspeaker, max. SPL 88 dB, IP 31
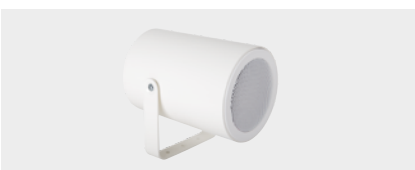
IP-LOUDSPEAKER

– Fully IP networkable – with IoIP and SIP connectivity.

– No central amplifiers needed thanks to secure IP PoE connectivity. This means that remote and distributed solutions are also possible.

– High volume and superior audio quality thanks to integrated 10 Watt Class-D amplifier. Intelligent Volume Control (IVC) automatically adjusts the volume setting to the ambient noise level.

– Conversation and talk-back capability over integrated microphone.

– Integrated inputs/outputs, e.g. control and monitoring.

– Each loudspeaker can be addressed and configured individually.

IP horn loudspeaker
AFLS 10H HG | IP66, for outdoor areas and industrial environments. Max. sound pressure: 118 dB.

IP projector loudspeaker
AFLS 10H PW | IP54, for indoor and outdoor areas that are protected against environmental influences. Max. sound pressure: 101 dB.

IP ceiling-mounted loudspeaker
AFLS 10H CW | IP 54, for indoor areas. Max. sound pressure: 105 dB.

CONTROLLING ACCESS AND PROTECTING ASSETS

Commend system solutions play a literal 'key role' in enabling access control and corresponding management. Unauthorised persons are kept off the premises, which reduces the danger of industrial espionage, theft and vandalism.

Prevention of unauthorised access and protection for employees and assets

Helps to defeat against industrial espionage, theft and vandalism

Improves efficiency at access gates and doors

Supports security staff both on the premises and off

Management and control of access gates, doors and airlocks

Perimeter protection

Combines Intercom with CCTV (video surveillance)

Enables silent alarms

Loud and clear

Whatever the need, from greeting visitors with an automatic welcome message to enabling lorry drivers to communicate with front desk staff with engine noise in the background – Commend's hallmark speech quality helps to sustain business critical communication under any circumstance.

Strong protection

The Intercom stations are protected against vandalism. For this purpose, the devices feature a front plate made from 3 mm stainless steel, a poke protection mechanism, special tamper-proof screws, and sabotage detection contacts.

Access readers

Installation housing for access readers.

WS 300 V

Station with one or three buttons; camera.

WS 311V DA

Station with one button, camera, induction loop amplifier.

WS 200 V

Station with one or three buttons.

WSDU 52V AM

Housing for an access reader.

INTERFACES
BETTER TOGETHER

When it comes to security and communication, the smooth interplay of all integrated components is essential. Reliable data exchange allows processes to be mapped across different systems to leverage their full potential. Commend Intercom systems support open standards such as OPC, SIP and TETRA, DMR, Modbus, KNX, SNMP and others, offering a variety of well-tested interfaces to third-party systems.

INTEGRATE
Interfaces and open standards enable a seamless integration of various different systems.

AUTOMATE
Data exchange between the systems is fully automated. Triggers events and actions can be defined across all integrated systems to suit individual needs.

PROFIT
If required, you can easily set up automated processes that help you maximise efficiency and ensure personal safety for your staff.

Video	Audio Public Address PAGA	Building Management Modbus / KNX
VoIP/SIP-Server*	VoIP/SIP telephones Analogue telephones Mobile telephones	Public telephone networks
Monitoring inputs and controlling outputs	Access management for barriers and doors	Digital and analogue radio systems
Signal beacons, display panels and visual alarms	Sensors	SDK Custom interfaces and third-party systems

TECHNOLOGY PARTNERS

You can interface your Commend system with third-party systems of leading manufacturers**.
Options range from video management systems to access control equipment and PA solutions.

advancis   CEM SYSTEMS (From Tyco Security Products)   Dallmeier   Digitronica.IT (INFORMATION TECHNOLOGY)   exacq (From Tyco Security Products)

Ferrari electronic   Genetec   GEUTEBRÜCK (Competence in Video Security)   IndigoVision   KEYPROCESSOR

Lenel (United Technologies)   milestone VERIFIED   nedap (technology that matters)   PACOM   PELCO by Schneider Electric

prysm (COMMAND AND CONTROL SOFTWARE)   SeeTec   SpeeD   VDG   vidsys

* SIP-PBX compatibility: Digium | Cisco | AVM | Alcatel | Mitel | Siemens | Kamailio | Innovaphone | Unify | 3CX | Starface | Aastra | Elmeg | Avaya | FreeSWITCH.

** All products or company names mentioned on this web site are brands or registered trademarks of their respective owners.

COMMEND WORLDWIDE

23 subsidiaries/partners operating in more than 59 countries.
More than 500 employees worldwide.

EUROPE

AMERICA

ASIA

AFRICA

AUSTRALIA
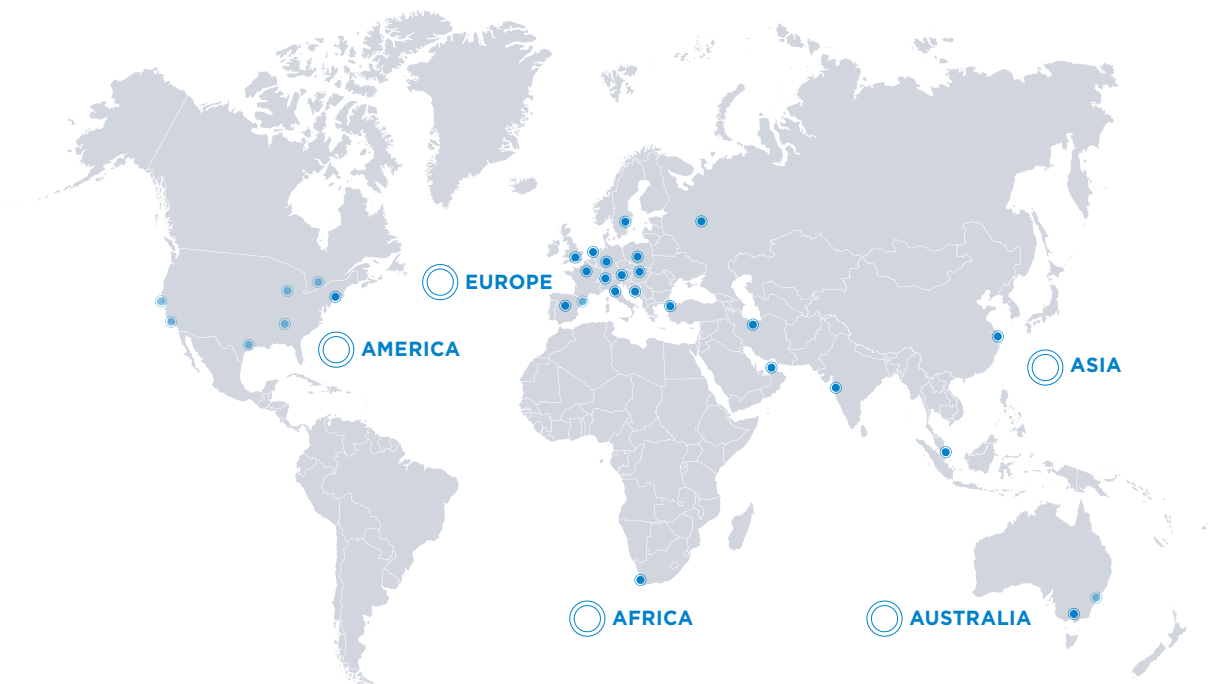
SECURE COMMUNICATION SYSTEMS BY COMMEND

Can you imagine a system that millions of people rely on every day, where every word has to count? That's the world of Commend! Secure, reliable communication is our passion. We are a global market leader with more than 45 years' experience in speech transmission. In addition to Intercom and video connections that interface with third-party systems we also provide products that open up new possibilities for integrated solutions. Commend is the first choice worldwide when it comes to secure and professional communication systems.

If you want to learn more about our Industry solutions, feel free to contact us.

industry.commend.com

AUSTRIA — OBSESSIVE ABOUT QUALITY

Quality-tested. Reliable. Well-designed. COMMEND products are developed and manufactured by Commend International in Salzburg, Austria. Our development and manufacturing processes are certified as per EN ISO 9001:2015.

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