



COMMEND
**COMMUNICATION
FOR CLEAN ROOMS**

Pharmaceutical Industry / Semiconductor Manufacturing /
Medical Facilities and Laboratories

TRUSTED. COMMUNICATION. ALWAYS.

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.

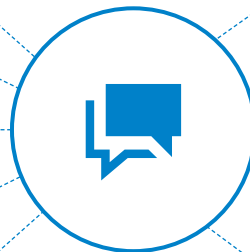
Supporting employees at work

Ensuring smooth workflows

Less production wastage

Fewer and shorter downtimes

Optimising staff resources

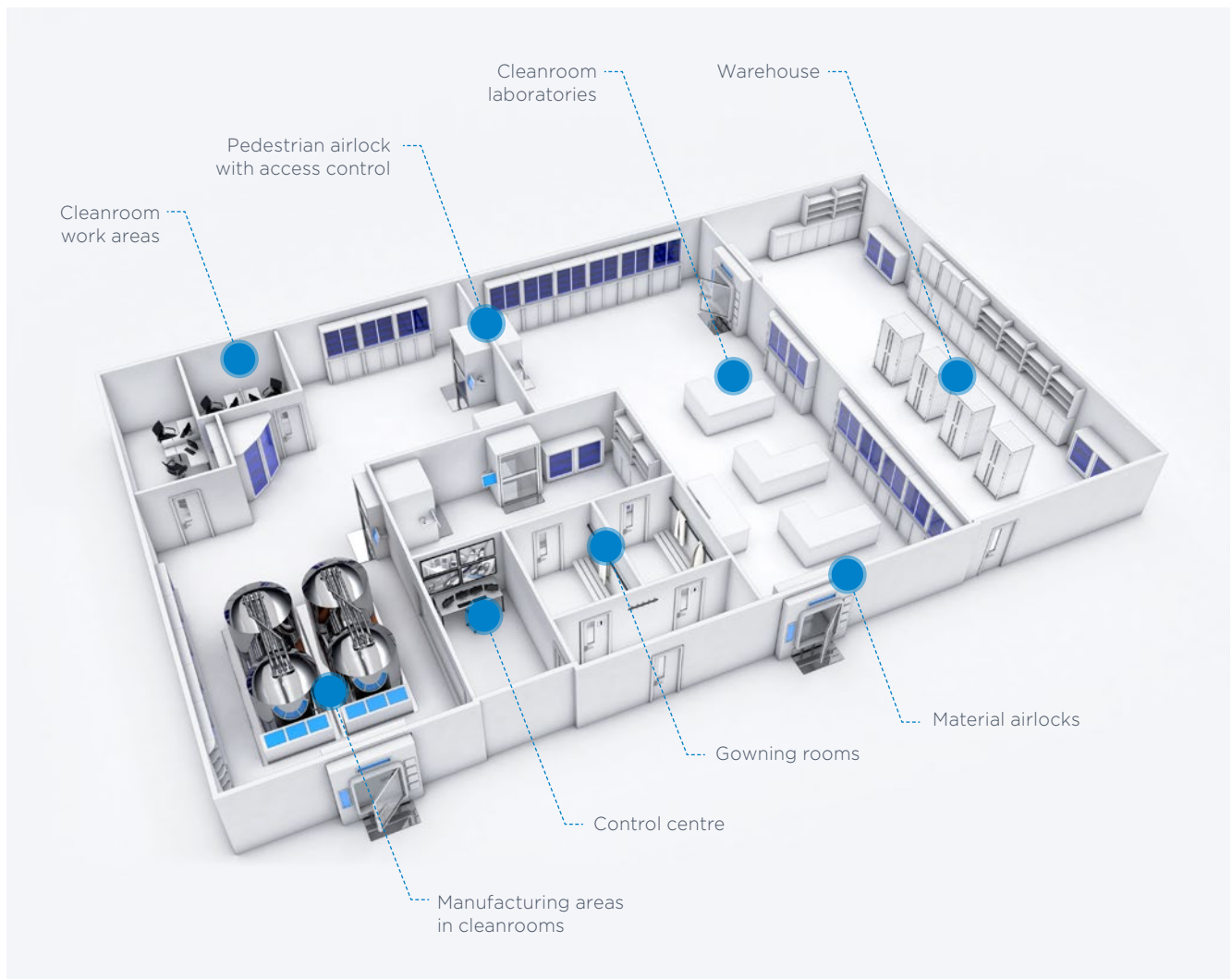


Providing a uniform
communication platform

**Instant call connections
without delays**

Much faster than ordinary communication systems, telephones etc.

Enabling staff to respond and
act quickly to any situation





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

SOLUTIONS FOR CLEANROOMS

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.

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.

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).

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.

INSTRUCTIONS DELIVERED

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



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

CLEANROOM STATIONS

SERIES WS

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.

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, microphones, 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.

- Ethernet with PoE or 2-wire cabling IP-Protocols (SIP or VoIP)
- 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.





INTERCOM STATIONS WITH TOUCH DISPLAY

OD10 | OD5

Operable with protective gloves

The touch displays can be operated with protective gloves, which is essential in clean rooms.

Brilliant and bright display

The od10 with a **10"** touch display and the od5 with a **5"** touch display all feature a brilliant display.

High volume and intelligibility

High-quality audio components ensure perfect speech intelligibility thanks to technologies ranging from background noise suppression and automatic volume adjustment to AI-based functions.

Easy cleaning and disinfection thanks to the glass surface

Durable and long-lasting thanks to high-quality materials such as hardened glass and aluminium. Protection class IP 65.

Customisable user interfaces

Different applications and locations require different user interfaces for ease of use and increased efficiency. If the existing standard layouts are not sufficient, the interfaces can be customised.

In addition, content such as safety information can be displayed in idle mode.

Universal Reader compatible with your access management system

Available in the appropriate format and design for od10 and od5, and supports a wide range of functions and technologies: LEGIC® Connect, LEGIC® prime/advant, MIFARE® DESfire EV1-3, HID®-iCLASS®, Bluetooth®, NFC®, OSDP v2. The Universal Readers are integrated into external access control systems via an API.



CONTROL DESK ID8

The id8 sets a new standard for call management with its cutting-edge features, bringing response times to unprecedented levels of efficiency. With up to five direct dialling button modules next to the base station with touch display, this control desk optimizes workflows and simplifies processes, effectively reducing the burden on control room staff. Whatever the application scenario, the id8 empowers users with total control over the system, guaranteeing the swift detection and response to every (emergency) call.



Customisable layouts

Select layouts tailored to your specific application and adapt them to your processes. This level of customisation goes beyond the office environment and is also perfect for industrial applications.

Modular design

The Intercom base unit can be enhanced with an add-on gooseneck microphone, handset and up to five direct dialling modules.

Good to know

Doors, gates and other equipment can be controlled via touch gestures and button presses, video images can be activated, public address zones can be selected, automatic and pre-recorded announcements can be triggered, and much more.

CONTROL DESK ID5

The compact control desk with 5" touch display can be expanded with a handset and/or gooseneck microphone. The control desk is available with or without a camera and can also be mounted on a wall as an indoor intercom station, with the display layout adapted to requirements.



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 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

OCCUPATIONAL SAFETY AND HEALTH

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.

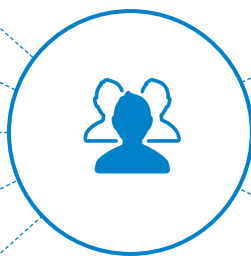
Avoiding accidents through enhanced communication

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.



AFTER-CARE 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.

CONTROL DESK SOLUTIONS

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

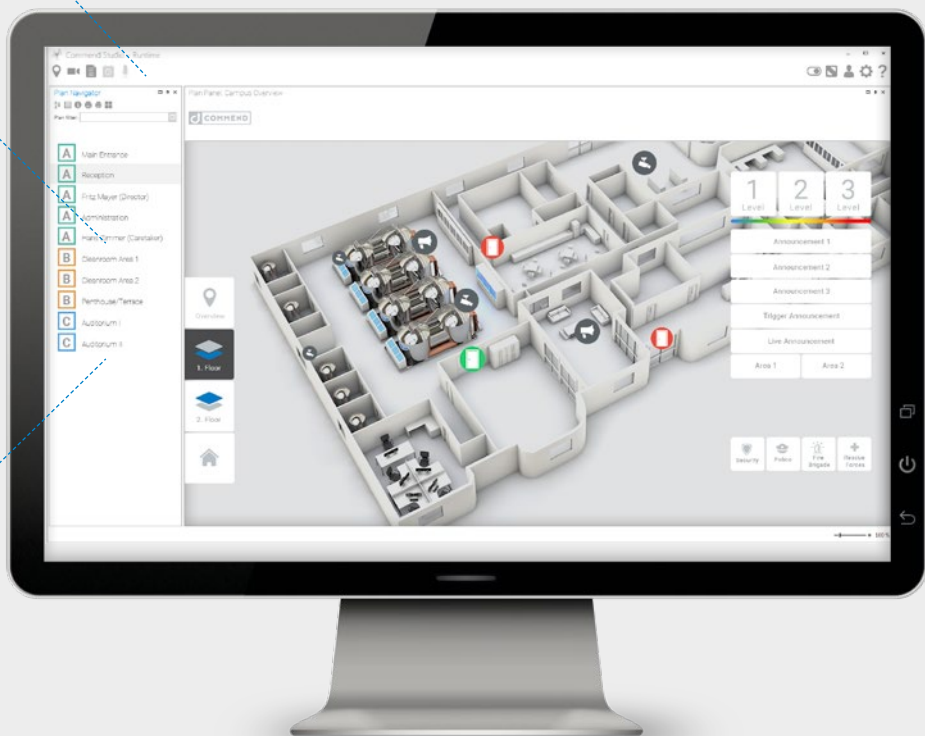
Pre-recorded messages can be connected and played back as needed.

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.



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

FOR DESKTOPS. FOR CELL PHONES. FOR... ALL!

SYMPHONY CALL MANAGEMENT

Discover Symphony Call Management, which provides every back-office employee with the capabilities of a dynamic service and control centre – simply in the browser and without additional software!

Whether in the office or on the go, calls are answered effortlessly around the clock. The user interface is so intuitive that you can quickly access contacts, favourites and the call list. Incoming calls are handled seamlessly with call centre features such as call queuing and call forwarding. Communication and perfect service, available around the clock!



CONTROL CENTER FUNCTIONS

Call queue – call forwarding – call pausing – remote access – activity log with snapshots

MOBILE MANAGEMENT

From answering door calls and communicating with intercom stations in clean rooms to making announcements, everything can be done easily via the App or Web Client – even when you're on the go.

EVERYTHING UNDER CONTROL

Through live streams from up to two video cameras and browser notifications for incoming calls

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.



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

**Calls to and from
Intercom stations**

**Calls to subscribers in
remote radio networks**

SOLUTIONS FOR VEHICULAR AND PEDESTRIAN ACCESS

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

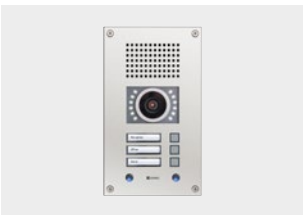
Whatever the need, from greeting visitors with an automatic welcome message to enabling lorry drivers to communicate with front desk staff with engine noise in the background – Commend’s hallmark speech quality helps to sustain business critical communication under any circumstance.

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.



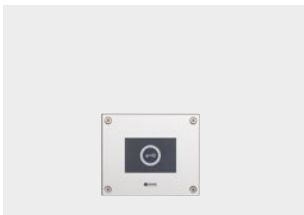
WS 311V DA

Station with one button, camera, induction loop amplifier.



WS 200 V

Station with one or three buttons.



WSDU 52V AM

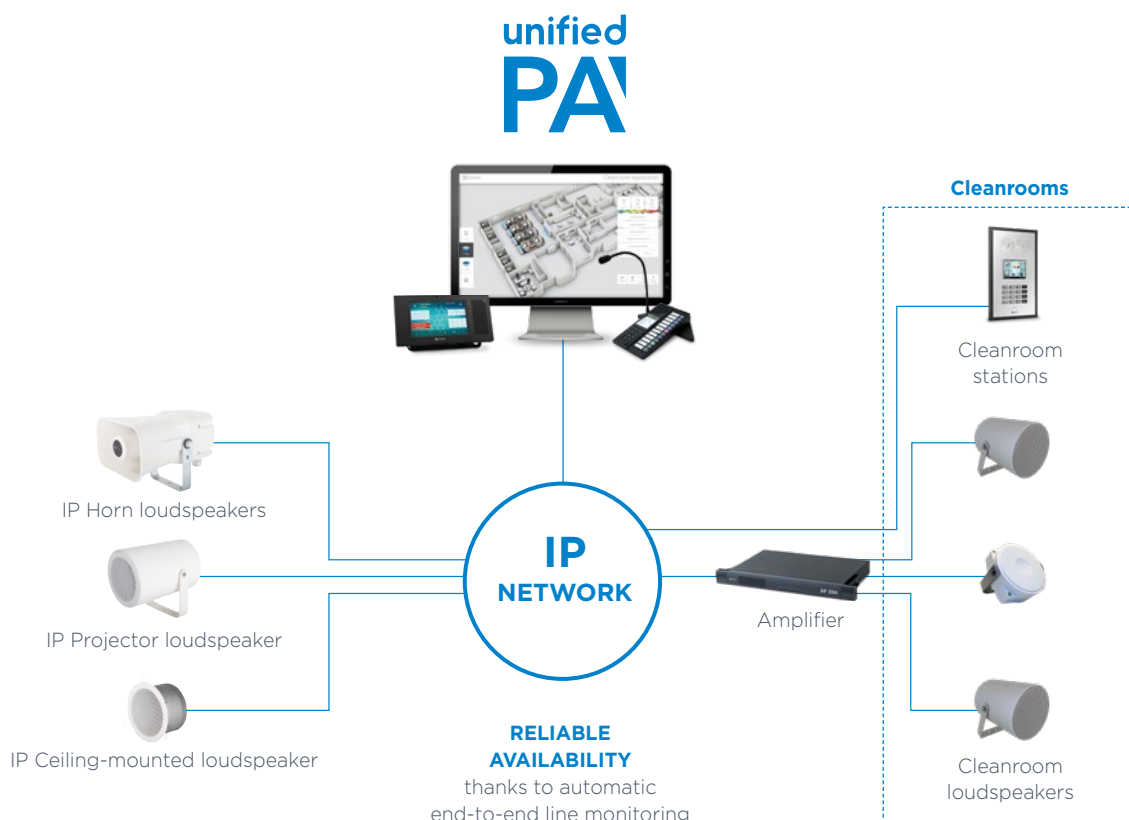
Housing for an access reader.

PUBLIC ADDRESS SOLUTIONS

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.



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.

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 ONVIF, 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	 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.



* 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.

PRODUCT SAFETY AT THE HIGHEST LEVEL

CYBER SECURITY

Intercom-systems that are developed and built from the ground up on the principle of ‘privacy and security by design’ are natively cyber-secure instead of simply having security features added to them. Solid security best practices, such as encryption via standardised Internet protocols and advanced encryption are used to defend against potential threats. Regular security audits and external penetration tests (“pen tests”) performed by independent testing authorities help to identify vulnerabilities and enable timely code ‘hardening’.

The ‘**Privacy and Security by Design**’ approach comprises an extensive set of measures to ensure Cyber Security on four main levels:

Physical Security – protects hardware components by functions such as manipulation detection and IP secure connectors.

Network Security – ensures that connections are secured by advanced encryption methods and network segmentation.

Data Security – applies cutting-edge cryptographic techniques to protect data on the system and when transmitted.

Fail Safety – ensures sustained system availability through automatic updates as well as fallback and fail safety strategies, utilising distributed server intelligence that comes built into the Intercom terminals.



<p>NETWORK SECURITY</p> <p>Ethernet – Port connection, authentication: 802.1X QoS (Quality of Service): Guaranteed availability VLAN – Virtual separation at the Switch VPN Connection (WAN) Firewalls/NAT</p>	<p>SYSTEM ACCESS</p> <p>Login via user/password authentication Secure Passwords or possibly digital certificates (X.509) User Management/Right Administration</p>
<p>PORT SECURITY</p> <p>Application Ports – Documentation Close unused Ports & Interfaces Restrict Port Access – limit e.g., to LAN only</p>	<p>ENCRYPTION</p> <p>User Data such as signalling, audio Signalling – SIPS instead of SIP Audio/Video – SRTP instead of RTP Configuration & Interfaces – https instead of http</p>
<p>UPDATES</p> <p>Scheduled Maintenance Updates Security Updates Operating System Updates e.g. Windows, Linux Software Components</p>	<p>AUDITS/ACCEPTANCE</p> <p>System Audits/Acceptance Test for new installations X.509 Certificates on all new Stations Penetrations Test System Documentation / System Log Evaluation Certificate Management</p>

ABOUT COMMEND

PASSION FOR SECURITY AND COMMUNICATION



1971

Founded in Austria



23

Subsidiaries & Partners
worldwide



60+

Operating in more
than 60 countries



550+

Employees worldwide



ISO 9001:2015

Quality Management



ISO 14001:2015

Environmental Management
Systems



ISO 27001:2022

Information Security
Management



IEC 62443-4-1

Cyber Security



DESIGNED AND BUILT IN AUSTRIA

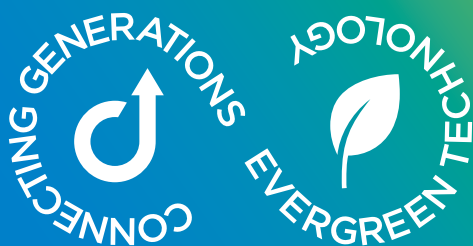
From the development and design of our products to the selection of individual components and our quality assurance processes – everything is dedicated to ensuring a long product life for the end user. The result are products with an excellent ROI thanks to their long lifecycle. Proven Commend Evergreen Engineering bridges product generation gaps. This means legacy components retain full functionality when used in combination with latest-generation systems. Our production facilities in Salzburg (Austria) are the birthplace of the stuff that Intercom dreams are made of. Millions of electronic components are brought together to create products that satisfy our clients' demands and deliver excellent audio quality that makes their users prick up their ears.



EFFICIENT COMMUNICATION IS KEY WHEN IT COMES TO OPTIMISING PROFITABILITY WHILE HELPING AND PROTECTING PEOPLE IN THEIR DAY-TO-DAY ACTIVITIES.

When every second counts, people need technology that does not just work but that works with one hundred per cent reliability - anywhere, around the clock.

At Commend, we are aware of our responsibility. That's because millions of people trust the Commend brand and our products every day, whether at a London tube station, a car park in France, steel works in China or a hospital in the United States. Where every word counts, Commend solutions make sure not a single one is lost.



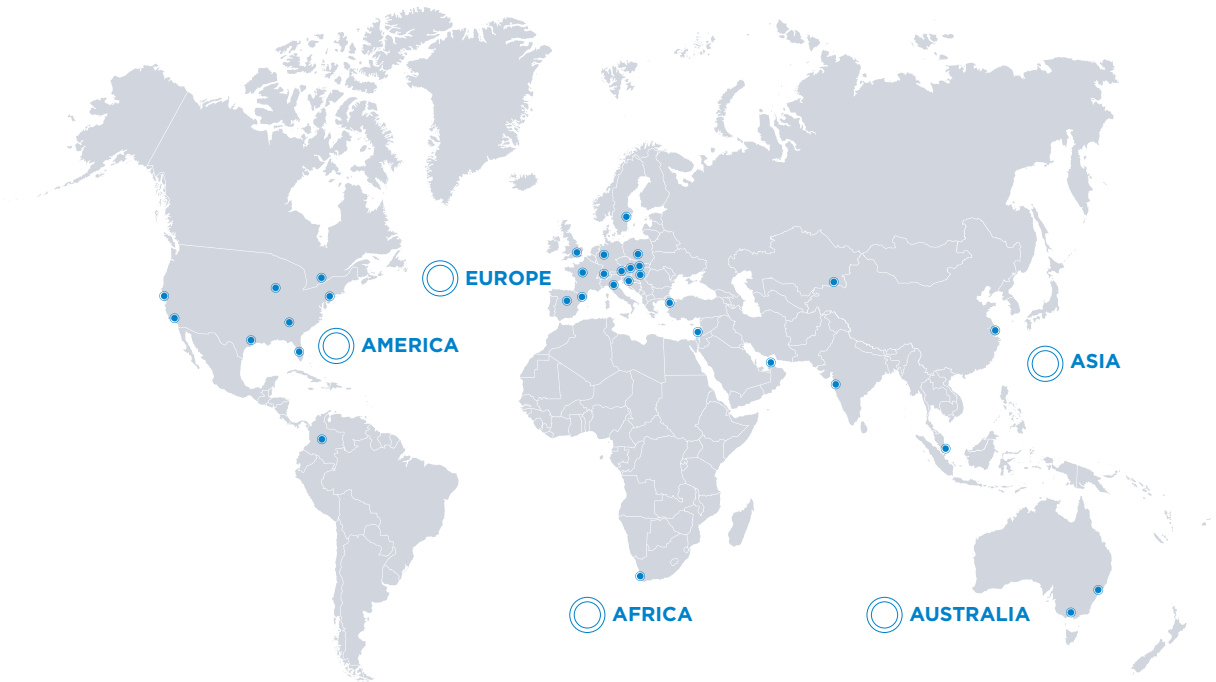
ONCE COMMEND, ALWAYS COMMEND!

One of the main secrets behind our success is **Evergreen Technology**, an integral part of our corporate genetics since 1971. After all, our principle of "Trusted. Communication. Always." also applies to the sustained longevity of our products and systems, resulting in an unbeatable combination of cost efficiency and environmental sustainability.



COMMEND WORLDWIDE

23 sales organisations operating in over 60 countries.
More than 550 employees worldwide.



SECURE COMMUNICATION SYSTEMS BY COMMEND

Can you imagine a system that millions of people rely on every day, where every word has to count? This is the world of Commend! Secure, reliable communication is our passion. As a global market leader with more than 50 years of experience in speech transmission, we provide not just Intercom and video connections with interfaces to third-party systems, we also provide products that open up new possibilities for integrated solutions. Commend is the preferred choice for hands-free voice communication systems all over the world.

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

commend.com



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, EN ISO 14001 and IEC ISO 27001.

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SF-Cleanrooms-EN-V30-0725