



# Intercom Client for Windows

The all-new virtual IP Intercom Station



Audio  
+ Functionality

Intercom  
integration

Intuitive  
operation

WebView  
integration

## Individual, flexible, future-proof

Not every Intercom station has to be hardware-based. Often a software solution will do just as well, or even better – at call centres, in embedded solutions or small-sized businesses, for example. The Intercom Client for Windows allows you to turn any regular PC, terminal or industrial PC into a professional Intercom. The intuitive user interface is optimised for ergonomic interaction and requires almost no user training.

What is more, the Intercom Client is fully customisable to meet individual requirements. Designing your personal Intercom Client for Windows layout is a breeze. And there's more: The powerful programming interface lets you integrate almost any Intercom function into your user interface layout. From building management and door controls to the display of service information, all functions are right at your fingertips. You can even integrate a direct link to the ComWIN Web Client. Supporting individual preference like that is essential. After all, the Intercom Client is designed to fit into a wide range of different application scenarios.

Need easy Intercom video access while on the go? Maybe an instant implementation of a desktop master station with intuitive control? Or how about easy instant extension of an existing desktop station? With the Intercom Client for Windows you've always got the right tool for the job. Now and in the future.

## Functions and Highlights

- Basic module, video module and direct dialling buttons conform to the hardware design of Command's range of classic desktop stations. Instant control of Intercom functionality the way you're used to!
- The Intercom Client integrates smoothly into existing infrastructures of Command software components and devices.
- Individually customisable user interface layout: use the Client with its ergonomically designed default layout or build your own custom solutions to suit your individual needs.
- Full integration of almost any Intercom function and use of external data links on a common, uniform platform.
- Numerous possible applications, from enabling on-demand dial-up links via your notebook to implementing extensions for Control Desks.
- Extended video module for basic surveillance tasks.
- Optional use of the ComWIN Web Client as user interface.

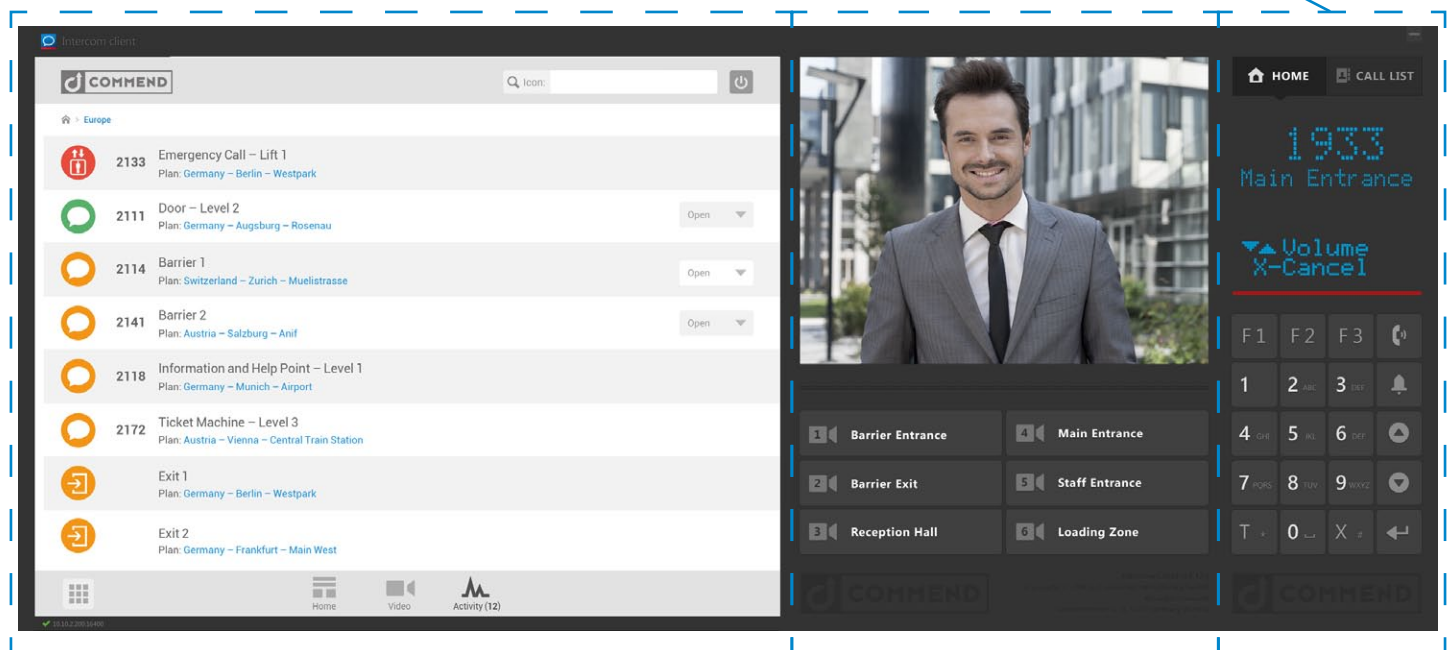
## The new Intercom Client for Windows- Your new customisable IP Intercom station

### The new user interface

Based on the concepts of the Windows Presentation Foundation, the Intercom Client blends in smoothly with the look and feel of the Intercom Clients on other platforms such as Android and iOS. The new one-window layout presents all modules in a clear overview for quick, targeted control.

### The new, intuitive operating concept

Handling of the Client has been optimised for intuitive and effective control. For example, the call list now offers a history with an option for direct selection. Another new feature is the ability to control the Client exclusively via the keyboard – even when another application has the focus. Also, there is full support of touch screen operation, and much more. In short: What you get is full Intercom support for quick, error-free action.



### A new level of flexibility, thanks to user interface customisation with WebView:

HTML and CSS support offers an easy, hassle-free way of designing your individual user interfaces. With the supplied programming interface (Software Developer Kit, SDK) you have instant direct access to virtually all Intercom objects. This way you can use direct dialling buttons for frequently used functions, for example. Or you can open doors or control heating and lighting equipment. You can even integrate the display of weather details or maintenance notifications with the same perfect ease. Providing full access to the ComWIN Webclient (has to be licensed separately) over your custom user interface is no problem either. In designing your custom user interface layout, you can make use of a fully-featured, scripting capable web browser – debugging support and password protection included.

### The new powerful video module:

Six configurable camera connections are provided via direct dialling buttons for use in video conferences. They are call-activated and also support basic video surveillance solutions. All this comes with full support of a wide range of video management systems.

## Connect, power up, communicate! Intercom power by Commend.

### Flexibility

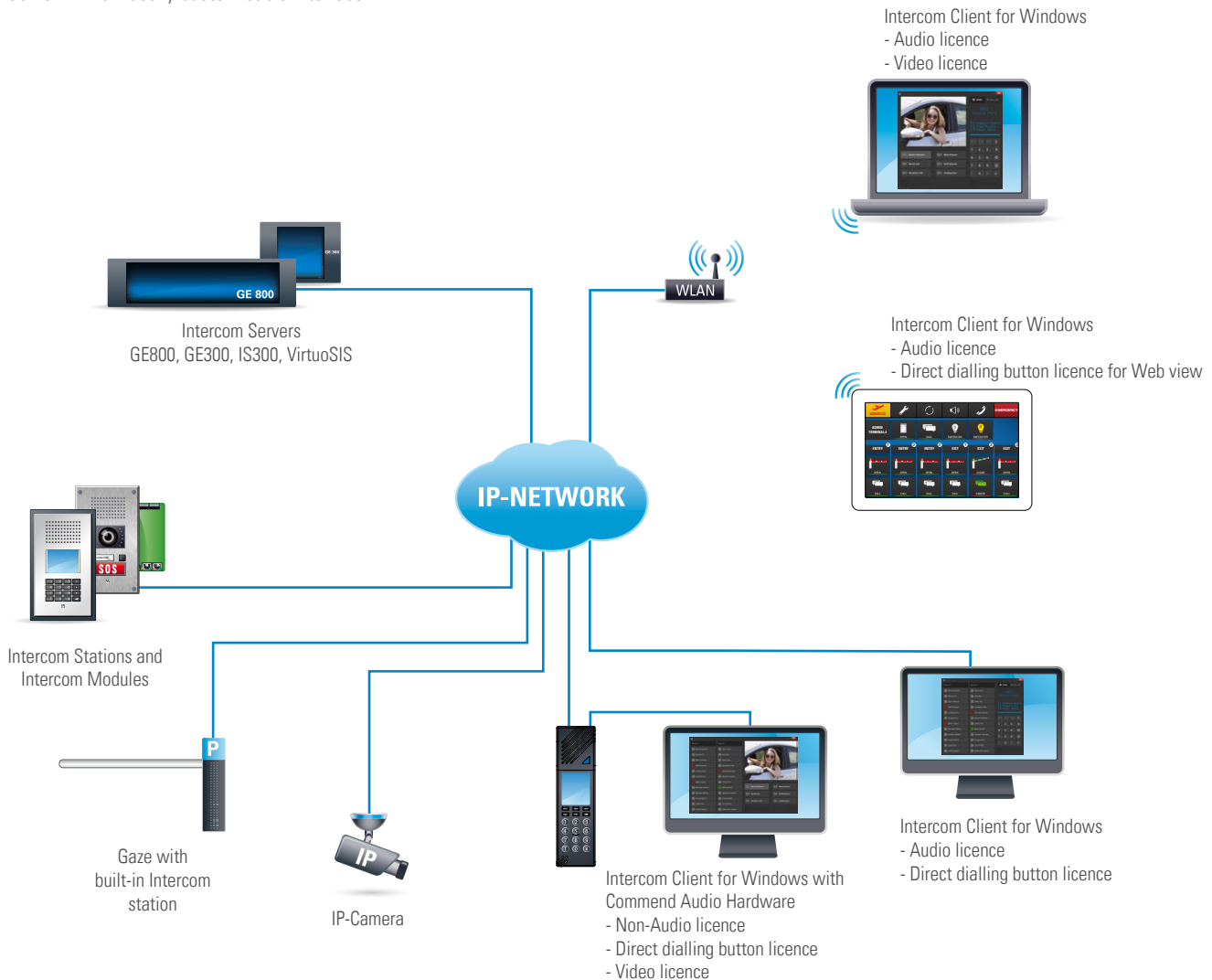
Intercom Client for Windows is easy to configure in accordance with your project requirements, and it integrates seamlessly into existing systems.

The following examples illustrate just a few of the configuration options of the Intercom Client for Windows:

- Adjustable size and position to match various sizes of Android devices
- WebView – individually customisable interface

### Commend Quality

The support of proven Intercom 2.0 functionalities (echo cancelling, OpenDuplex etc.) is standard, as is the excellent speech quality at up to 7 kHz bandwidth on your Windows PC. Using the Client to control external Commend Audio hardware enables crystal clear 16 kHz speech quality.



### Mobility

Your Windows device now turns into a fully functional Intercom terminal for when you are on the go – conveniently with e.g. modern touch screen and webcam support.

Integration via **WLAN** or **WWAN** enables Intercom communication without the need for a fixed connection.

Use the **Voice, Video** and **Control** functions **wherever, whenever** and **however** you want – all in Commend's usual high quality.

### Intercom solutions by Commend

Data networks enable the transmission of all kinds of data. To enable Intercom transmissions, Commend has developed a specific technology: loIP, short for Intercom over IP. A logical further development of Voice over IP technology, loIP provides **better speech quality and higher data security** and serves as the Commend standard for the professional integration of Intercom stations, control and display functions, networking of Intercom Servers, and especially for **security and communication solutions**.

## Your Intercom Client for many purposes

Where and how can the new Intercom Client help to make your work easier, faster, more efficient and even more excellent for you? Dedicated Commend audio hardware ensures superior speech quality and fail-safe connectivity, with the software extension modules providing additional flexibility and ultimate convenience – all that in a small space and at low overall cost. The ideal solution for extending existing Control Desks, upgrading small-sized control points or adding desktop video support. Here are four practical examples:

### PC Workstations



At call centres, agents use the Intercom Client for Windows with attached headset for handling customer calls. They typically run other system controlling applications, such as parking management software etc., in parallel with the Intercom Client software.

Lack of physical space is a frequent concern at Control Desks. There is also the need to integrate external systems and to operate several systems via the same keyboard. This is where the Intercom Client for Windows comes in. Unlike simple software-based SIP/VoIP clients, it provides a fully featured Intercom station with all the functions that Commend Intercom technology has to offer. For example, using the same keyboard on several systems is no problem, thanks to the ability to allocate the keys on the numeric pad of the keyboard.

### Windows-based terminals



Reaching beyond the limits of the PC, the Windows operating system has been conquering new device types and form factors. The growing popularity of touch interaction opens a variety of additional application options for the Intercom client. It can be used as an integrated industrial terminal for gate posts or vending machines, for example. Or it can run on a tablet PC to extend a stationary Control Desk with a mobile option. Fitted with a wall-mounting frame or desktop support, your mobile device turns into an indoor Intercom station for communication in buildings.

Whatever the application, the Intercom Client makes full use of the versatility of the latest devices, whether with mouse or touch interaction, in mobile or stationary arrangements, combined with special Commend audio hardware or as a stand-alone software solution, in the default Commend layout or with a custom tailored user interface. The Commend Intercom Client for Windows ensures that Microsoft-based infrastructures can be integrated easily and effectively.



## Your Intercom Client for many purposes

### Desktop device as flexibly extensible base station



Building a professional Control Desk doesn't necessarily require expensive, space consuming Control Desk hardware. The Commend desktop base station for workplace PCs offers a cost-efficient yet powerful alternative that can easily be extended with software modules.

Here are three examples for useful extensions via software modules:

- **Bi-directional video:**  
A webcam and large-sized monitor let you turn the audio-only device into a modern video conferencing system. Comprehensive video integration also supports basic video/CCTV surveillance.
- **Direct dialling buttons:**  
Frequently required call destinations can be selected at a simple click of the mouse, without the need for additional desktop space.
- **Intuitive user guidance:**  
Instead of allocating frequently used functions to numeric keys on the desktop terminal, you can make them conveniently accessible by way of an intuitively usable graphic interface (e. g., door openers, building technology, etc.). Another option is providing weather data or implementing a shared information pool for multiple call centre operators.

### On-demand dial-up interface



Not every Intercom terminal will be used around the clock. Thanks to its integrative capabilities, the Intercom Client for Windows is also a flexibly, cost-efficient client for managing Intercom on demand.

Whether at the home office or in the coffee shop, at a customer visit or in a hotel room – the Intercom Client provides on-demand communication with the same ease and convenience as the dedicated connection at the office. Perfect speech quality, Intercom Pro features, and full support of plug-in headsets and webcams make for the perfect Intercom user experience anywhere, any time.

Comprehensive video integration also makes the Intercom Client ideal for checking the CCTV images of remote facilities to decide whether it is necessary to deploy staff to the site.

Commend Intercom Client for Windows – the trusted communication companion for every business notebook.

## Technical data / System requirements

### System Requirements - Intercom

- **Intercom Server**  
GE 800 min. PRO 800 3.1, G8-IP  
GE 300 min. PRO 800 3.1, G3-IP  
IS 300 min. PRO 800 3.1  
VirtuoSIS min. PRO 800 3.1
- **Configuration Software:**  
min. CCT 800 3.1

### System Requirements - Hardware

- **Processor:**  
Minimum (without video): Intel Atom N270 1.6 GHz or equivalent\*  
Optimal (with video): Intel Core 2 Duo or equivalent
- **Memory:**  
Windows 7 / 8: 2GB RAM
- **Video:**  
Video card support for DirectX9.0c
- **Audio:**  
DirectX 7+ compatible sound card
- **Tested with the following sound cards:**  
Soundmax, Realtek und Intel High definition Soundchips  
Creative Soundblaster Live!  
USB: Terratec Aureon Dual, Terratec Aureon 5.1 MK2,  
M-Audio Fast-Track Pro  
Firewire: M-Audio ProjektMix IO
- **Operating system:**  
Windows 7  
Windows 8
- **.Net Version:**  
min. Version 4.5.1

### Audio

#### Recommended Microphone Types

- MIC480AJ
- MIC-Q400AJ

#### Conversation Modes

The following conversation modes are supported:

- Simplex
- Duplex
- OpenDuplex

#### Note:

In order to achieve the optimum functionality of the echo canceller in OpenDuplex operation, the microphone and loudspeaker levels in Windows must be adapted to the circumstances. An exact recommendation can not be given because the large amount of available sound chips and microphone/loudspeaker characteristics are to diverse.

#### General recommendation:

In order to reach the highest possible quality at OpenDuplex conversations, position the microphone and loudspeaker as far from each other as possible.

### Video

The video screen supported the following video functions:

- Automatic video display to preview monitors at call request or door call
- Observation monitors
- Manual connection of cameras
- Scanning with programmable times
- Black picture camera

**Note:** The required bandwidth depends on the number of IP video sources and their configuration. Therefore the network requirement must be determined for each project separately.

## Requirements to the network

#### IP-Addresses and Ports

- For the Intercom Client the DHCP functionality is available. If DHCP is not used, the Intercom Client must have a fixed IP-address.
- In case of a changing public IP-address, dynamic registration of an Intercom Client is possible.
- Communication from the program IPStationConfig is done via Port 16399 (can not be configured).
- Communication from the Intercom Client to the Intercom Server (UDP protocol) is done via port 16400 (configurable).

#### QoS Requirements

- Maximum One-Way-Delay 100ms
- Delay-Jitter not above 50ms
- 0% packet loss for perfect audio quality

#### Bandwidth

- The required bandwidth depends on the desired number of speech links:
  - Bandwidth incl. protocol overhead per IP-Intercom terminal, for upload and download:

	3.5 kHz	7 kHz	16 kHz
Bandwidth (speech and data):	96 kBit/s	96 kBit/s	143 kBit/s
Speech is compressed to:	G.711 standard	G.722 standard	G.722 standard

Tailor-made for your budget:  
A perfect interface for every application.

## Licences

Following licences are available and legal for all Commend Intercom Clients.

### ICCAA Audio Licence

This enables the default Intercom Client functions, including Audio functionality at up to 7 kHz, depending on the audio hardware used.

L-ICCAA1	Licence for 1 Client
L-ICCAA1-4	Licence for 4 Clients
L-ICCAA1-8	Licence for 8 Clients

### ICCNA Non-Audio Licence

This enables the default Intercom Client functions without on-board Audio support. Excellent audio quality can be achieved via control of external Commend Audio hardware (e.g., ET 908A, EE 811A, EE900A, etc.).

L-ICCNA1	Licence for 1 Client
L-ICCNA1-4	Licence for 4 Clients
L-ICCNA1-8	Licence for 8 Clients

### ICCDDA Direct Dialling Button Licence

Each licence activates one Direct Dialling module with 12 direct dialling buttons.

The Intercom Client for Windows supports the use of up to 36 direct dialling buttons.

L-ICCDDA	Licence for 1 Direct Dialling Module (12 buttons)
L-ICCDDA-4	Licence for 4 Direct Dialling Modules (4 x 12 buttons)
L-ICCDDA-8	Licence for 8 Direct Dialling Modules (8 x 12 buttons)

### ICCVA Video Licence

This licence unlocks the full range of functions provided by the Commend Video feature. Bi-directional Video and surveillance support with video connections from and to Commend components and 3<sup>rd</sup> party equipment.

L-ICCVA	Licence for 1 Client
L-ICCVA-4	Licence for 4 Clients
L-ICCVA-8	Licence for 8 Clients

## Quality tested. Reliable. Smart.

COMMEND products are developed and manufactured by Commend International in Salzburg, Austria.

The development and manufacturing processes are certified in accordance with **EN ISO 9001:2008**.

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## A strong worldwide network

COMMEND is represented the world over by local Commend Partners and helps to improve security and communication with tailored Intercom solutions.

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