



# ENTRYCONTROL

Version 1.1.0

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Administrator manual for use with ALPHATECH  
TECHNOLOGIES IP BOLD DoorPhone intercom

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For Administrators only

# 1. Introduction

## What is the purpose of OfficeMaster EntryControl?

Traditionally, intercom systems are connected via telephony only. Increasingly however, companies for security reasons require a video image of the visitor, specifically before the voice connection has been established. This commonly requires the use of manufacturer-specific remote stations for call accepting and video display.

In a migration to *Microsoft Lync/Skype for Business*, the PC at the client should handle that function in addition to telephony. This is exactly what EntryControl by Ferrari electronic AG does. The Microsoft certified media gateway *OfficeMaster Gate* forwards the call to the Lync Server and presents it as an intercom within the Lync Client of the designated reception staff. At the client, *OfficeMaster EntryControl* simultaneously shows the video feed. Pressing the door-opening button gives the visitor access to the building and terminates the connection.

*OfficeMaster EntryControl* is a client application.

## About [ALPHATECH TECHNOLOGIES IP BOLD DoorPhone intercom](#)

This door entry device connects to IP network and allows two ways of calling: Either P2P (peer to peer), sending a call directly the IP address of another VoIP device or it registers to a SIP server (as a SIP client) and then calls a phone number. Up to five phone numbers can be assigned to each button with the possibility of progressive or simultaneous dialing.

The DoorPhone IP-BOLD is offered with 1, 2 or 4 buttons with or without full colour camera and with or without keypad. A camera is needed in combination with OfficeMaster EntryControl solution described here.

The device is powered by a 12V power supply which will also supply electrical door-lock. It might be powered also by PoE (Power over Ethernet).

## 2. Video Intercom Systems

Video intercom systems have to be configured so that they can fulfill three functions:

- Audio call to a single participant or group via click/press of a button
    1. A SIP-INVITE has to be sent from the intercom to *OfficeMaster Gate*
  - A video stream must be provided
    1. It must be possible to open the cameras video stream from the client
    2. IP-BOLD video stream is supported by OfficeMaster EntryControl
  - Accept open-door signal
    1. as HTTP-Request or DTMF
- ▼**Note!** Ferrari electronic assumes no responsibility for the correct functioning of the intercommunication device! A functioning environment is the basis for the use of EntryControl.

# 3. Installation of EntryControl

## 3.1 Installing Licenses

OfficeMaster *EntryControl* version 1.X requires the use of a physical or virtual *OfficeMaster Gate*. This device is used to translate between standard SIP usage and Microsoft extended SIP protocol. It is also used to store the license for all *EntryControl* devices. Activation and installation of licenses is documented in the *OfficeMaster Gate* manual.

The next version of this software will also support a configuration where the SIP to SIP translation is covered by equipment already available at the customer. In that case the license will be installed with a separate tool.

### 3.2 Installing OfficeMaster EntryControl software

The configuration program as well as the client application are installed using the *EntryControl* installation file. An assistant guides through the installation, providing a simple way to apply the necessary settings.



Image 3.2: Start of the EntryControl Setup

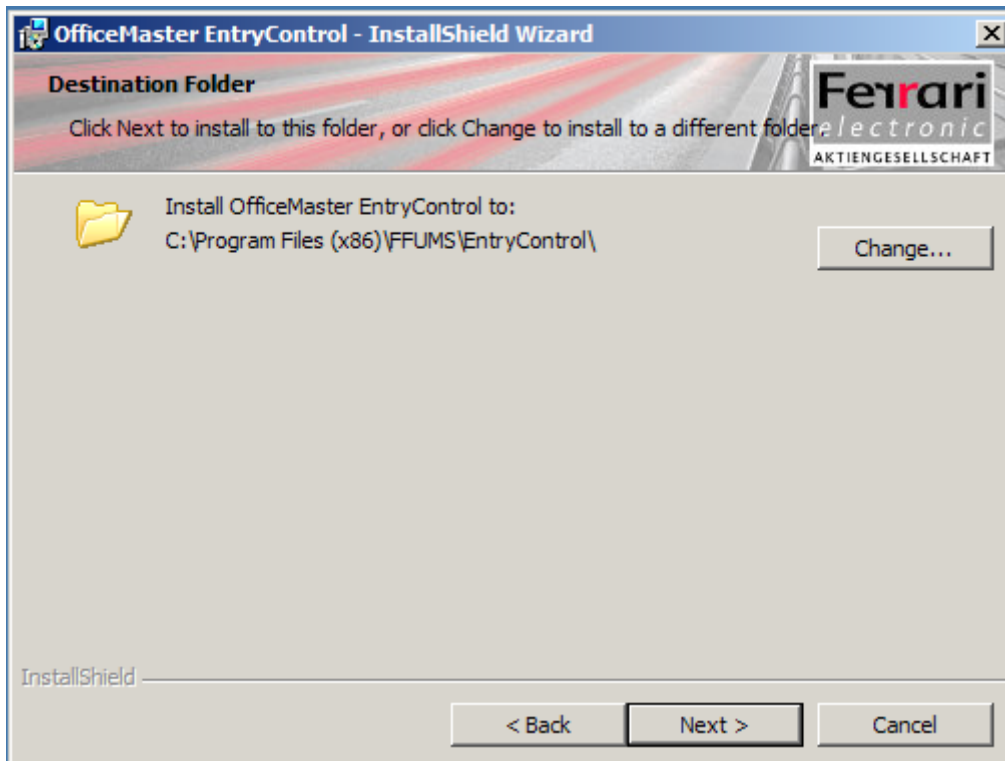


Image 3.3: Selecting the Installation Path

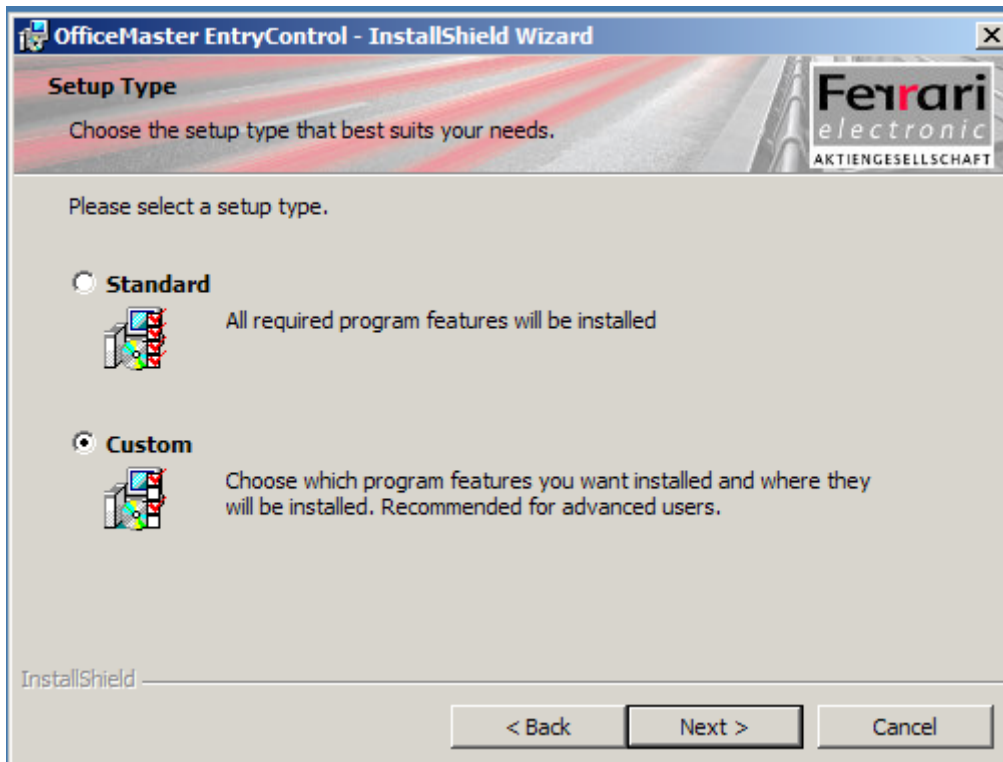


Image 3.4: Custom Setup allows selection of individual components

▼**Note!** The standard setting will install *EntryControl* as a client application for *Microsoft Skype for Business* and *Microsoft Lync*. For *Estos ProCall* and the configuration program, Custom has to be selected.

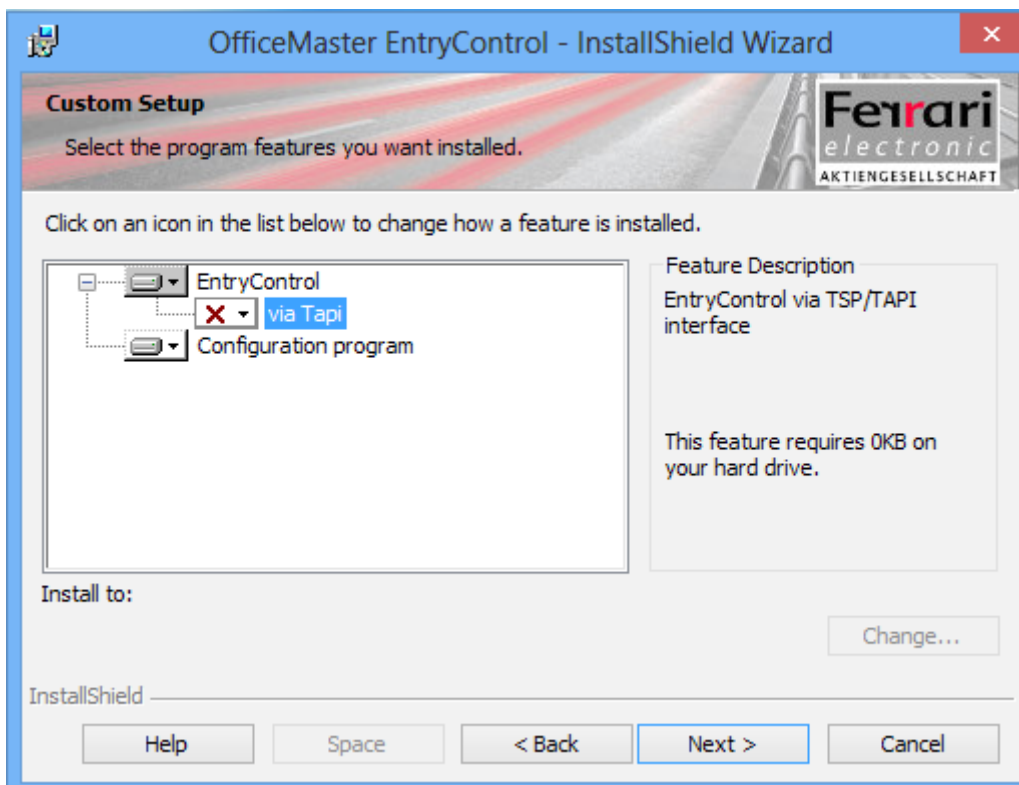


Image 3.5: Selection of Components, TAPI is used for ProCall

### 3.3 Configuration

*EntryControl* utilizes security groups within the Active Directory to manage intercom systems. An administrative user account is necessary with write access to Active Directory.

Execute the *EntryControl* configuration program with administrative permissions on your domain in order to configure the necessary settings for the group.

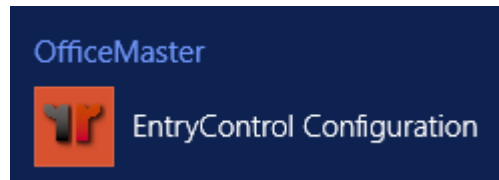


Image 3.6: Starting the Configuration Tool

The configuration program connects to *OfficeMaster Gate* to query the licenses (in version 1.X). As a next step the availability of the security group to hold all door camera contact objects is checked. If the group does not yet exist, the following message box will appear:

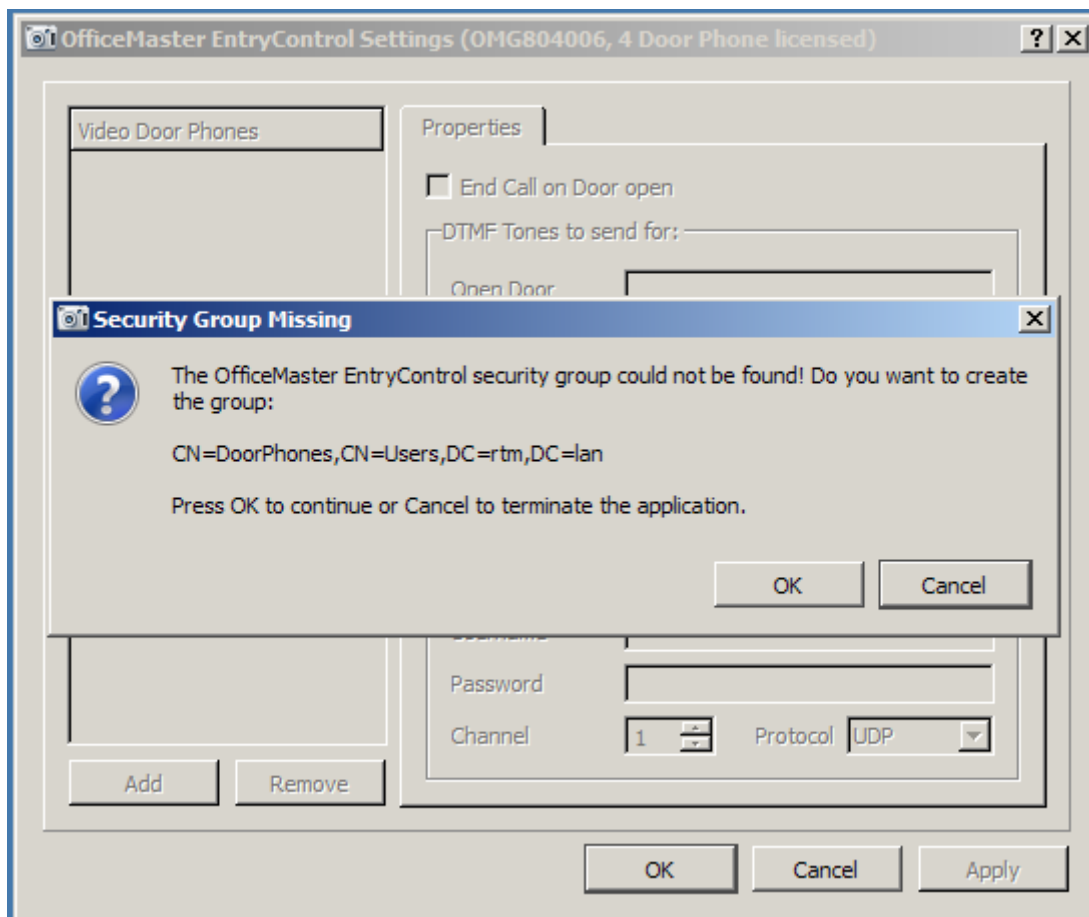


Image 3.7: First Start-Up of EntryControl Requires the Creation of the Security Group

### 3.3.1 Adding an Intercom Device

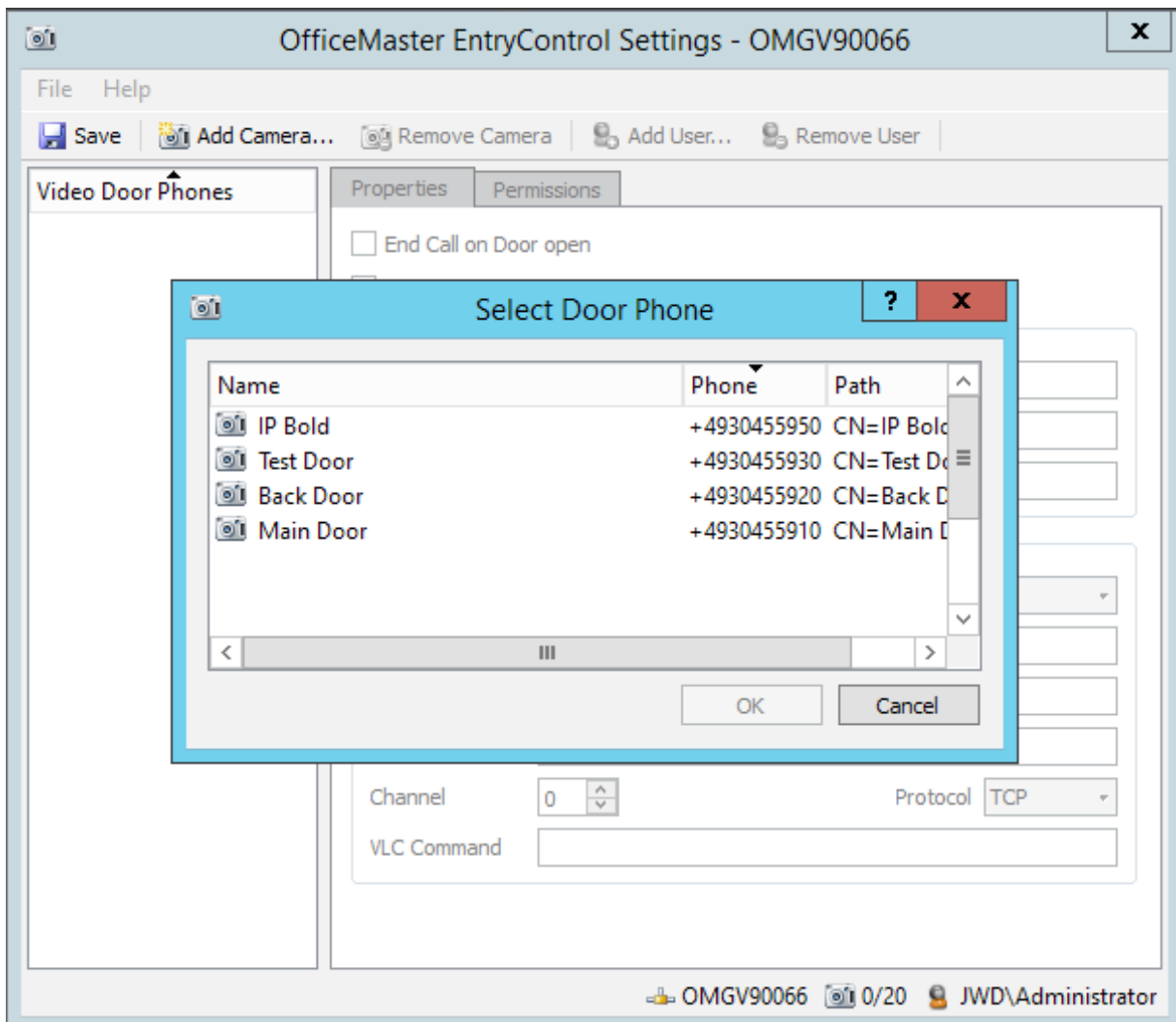


Image 3.8: Click "Add Camera" and select a device to be added

Any intercom device to be added has to be created within *Lync* or *Skype for Business* as an analog device before. An analog device is always represented by an AD contact object which is used by EntryControl to store all device specific settings.

#### Which contacts will be found?

```
(&(objectclass=contact)(msRTCSIP-Line=*)(msRTCSIP-OwnerUrn=*analogphone*))
```

A security group with the required global settings is created for the cameras. All contacts representing intercom devices will become member of this group. Optionally another security group in which the access authorizations are defined can be set up for every individual intercom device. The following group names are used:

- OMECDoorPhones
- OMEACL

The groups are created within the User-Container. You can skip the next step, in which possible adaptations are described, if you are authorized to make all these changes in Active Directory. Overwriting Standard Settings



### 3.3.2 Overwriting Standard Settings

▼**Note!** Any changes made in regards to which containers are searched or the group names also have to be taken into account during the installation of the client software.

Settings are accessed either by starting the configuration program (should the program detect that no Door-Phone-Groups are configured) or via **File>Settings**.

#### ► Basic Parameters

##### ► Door Phones Group

Enter the group name under which the intercom device should be filed

##### ► Phone ACL Group Prefix

The groups responsible for the access authorization of the intercom devices have this prefix

##### ► Settings Path

With the setting **Default User Container**, groups are searched and saved within the **User** container. Selecting **Custom Container** and entering the respective path allows for the use of another path.

#### ► Active Directory Search

Here you can configure the access to the contacts that are to be used as intercoms. With standard settings these are all **Lync Analog Devices** with a SIP number.

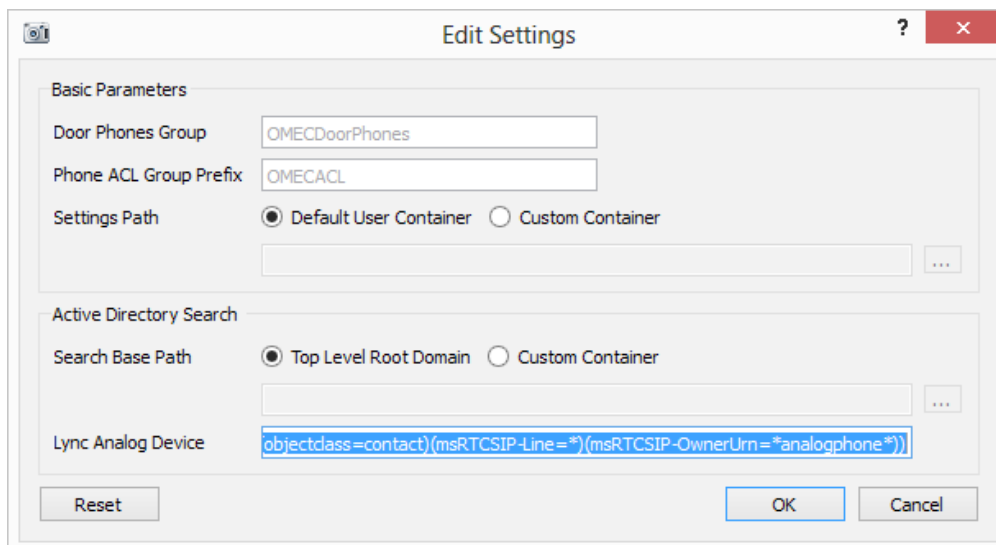


Image 3.9: Adjusting the Query String for Contracts

##### ► Search Base

Here you can adjust the query string for contacts that are to be used as intercoms for when you only have access to a dedicated section but not the whole domain.

### ► Lync Analog Device

The expression under *Lync Analog Device* has to be adjusted, should other contacts be found and assigned the appropriate definition as an intercom device.

## 3.3.3 Configuration of Intercom Devices

After adding a contact that represents the intercom device, its behavior can be configured. The contact is now a member of the previously defined security group (OMECDoorphones in this example).

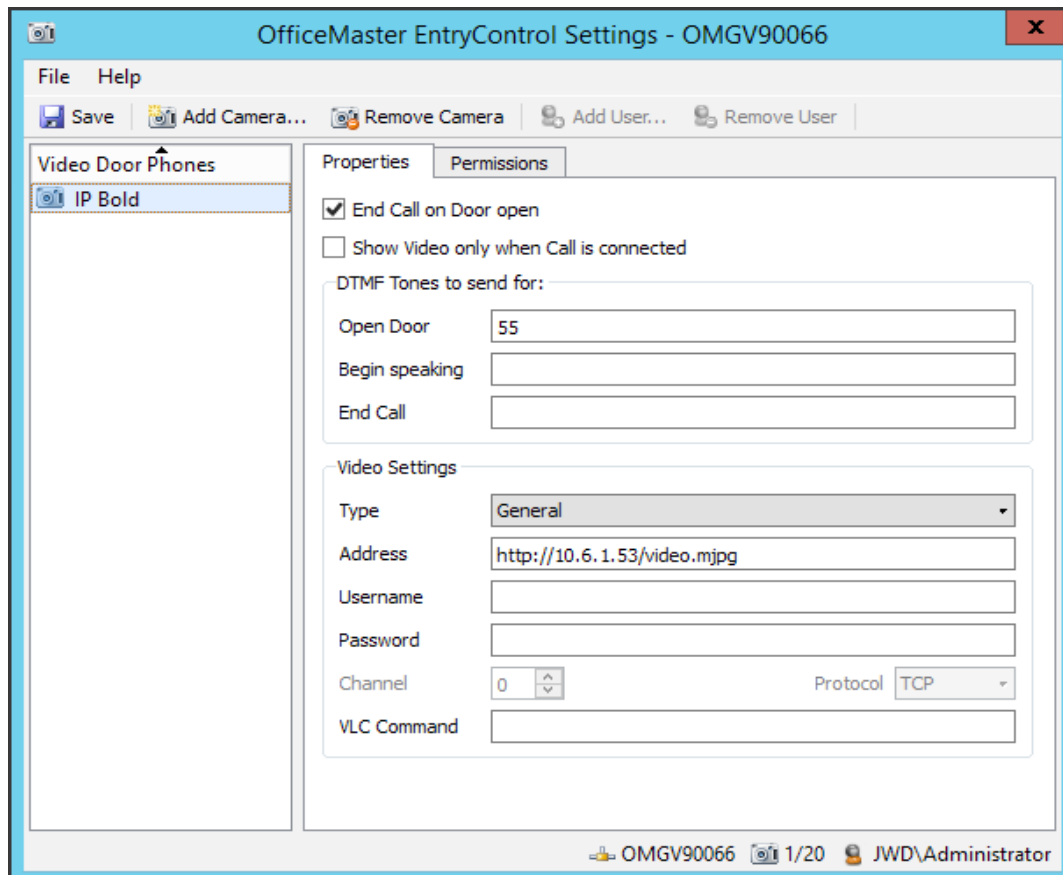


Image 3.10: Configuring the Intercom Device

### ► End Call on Door Open

This setting controls the behavior of *EntryControl* after the *Open Door* button has been pressed. Depending on your requirements you can either select *End Call on Door* open for the call to terminate after *Open Door* has been pressed or deselect it, in which case the call remains open.

▶ Show Video Only if Call is Connected

When this option is checked, the video of the intercom device is only shown if the call is connected.

▶ DTMF Tones to send for:

In this section it is configured how **EntryControl** is to operate the intercom device. Some devices require DTMF, others are operated via HTTP-Request. Please enter either the complete URL or the appropriate DTMF sequence (0,1,2,3,4,5,6,7,8,9,\*,#).

▶ Open Door

Gives the signal to open the door

▶ Begin speaking

Opens an audio connection to the intercom device

▶ End Call

Terminates the connection

▶ Video Settings

▶ Type

Select your intercom device. For IP-BOLD select **General**

▶ Address

IP address of the camera

▶ User name, Password

User name and password for the automatic login and operation of the intercom device. Do not use the information of the main admin of the system

▶ Channel

This is used for legacy analog video converters.

▶ Protocol

Communication protocol

▶ VLC Command

**EntryControl** internally supports the VLC-VideoEngine. Enter the command with which **VLC** can access the video feed of the camera here. By default - if nothing has been entered - the conversion for H.264 streaming is used.

### 3.3.4 User Settings

*EntryControl* can operate completely without explicit user authorization as the configuration of the intercom device requires a telephone number. This means that only those users are called, that have a telephone number configured.

- A separate user authorization per intercom device is required in the following cases:
- Uniform distribution of the desktop software (including clients that receive no control of the intercom device)
- Shared clients (multiple users on one client)
- Multiple cameras with shared responsibilities

No authorizations are set by default. This means that everyone that uses *EntryControl* in combination with a read-permission for the Active Directory can operate the camera and view the video if supported by the camera.

Ticking the Enable Security Permissions box will, before applying further settings, disallow everyone the control of the camera. Add User configures individual users or user groups to have the necessary permissions. For this a security group with the prefix "OMECACL" followed by the name of the door is created in Active Directory. Every user that is granted the appropriate permissions is then added to the security group.

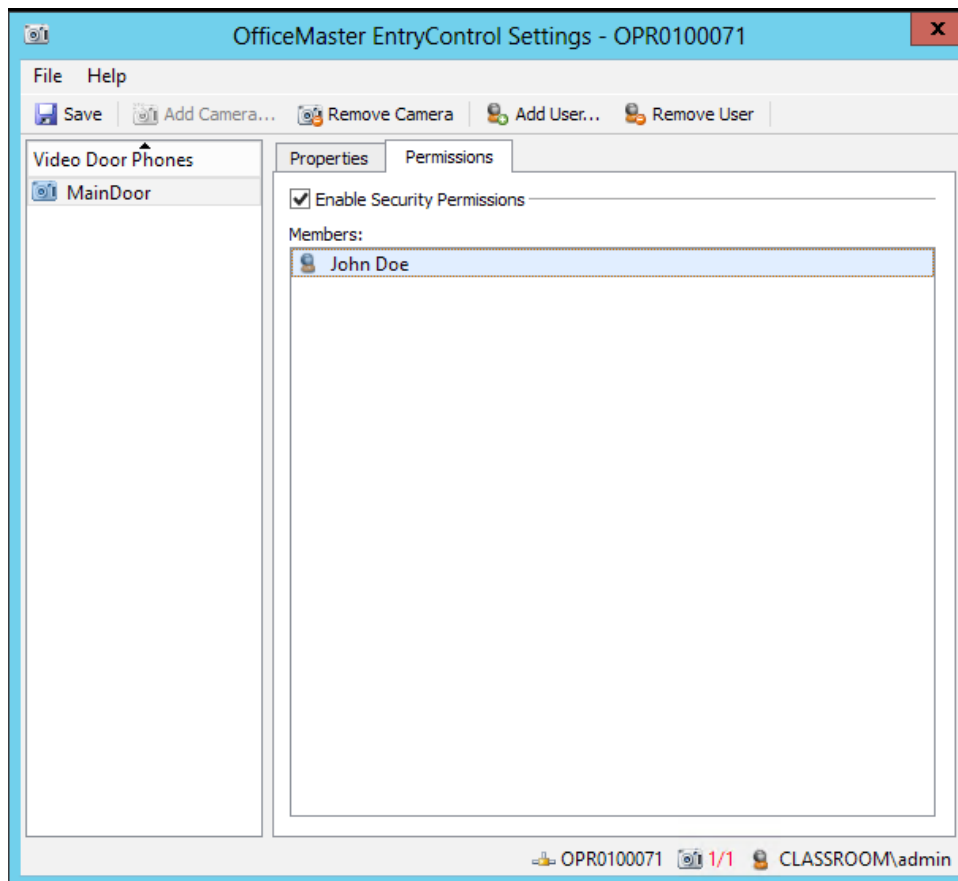


Image 3.11: Intercom device with declared user rights for John Doe

▼**Note!** Any changes to the configuration will only be accepted after restarting the client program

## 3.4 Configuration at the client

▼**Note!** When using *EntryControl* in an environment with *ProCall* by *Estos*, a connection is established via the API of *ProCall*. This has to be selected in the setup of *ProCall*.

Through the setup, *EntryControl* is placed in auto boot. On every execution of the client program, the Active Directory list of intercom devices respectively telephone numbers to which *EntryControl* is programmed to respond is retrieved.

After changing settings for the security groups in the configuration, the following Registry-Keys have to be edited or created in the setup of the client. The default values are inserted hereinafter:

---

```
[HKEY_CURRENT_USER\Software\Ferrari\LyncEntryControl]
"ADGroupLookupGroup"="OMECDoorPhones"
"ADUserGroupLookupGroupnamePrefix"="OMECACL"
```

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▼**Note!** HKLM is the fall back for all registry entries! There the appropriate keys for clients that are used by multiple users can be set.

### Settings on the client software

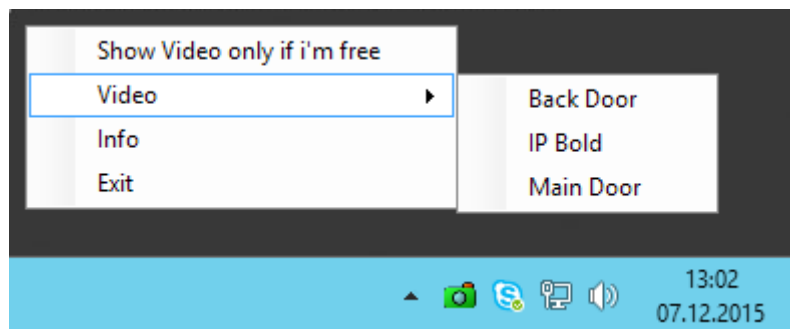


Image 3.12: Symbol in the Information Section of the Desktop

A small green camera symbolizes the *EntryControl* client on the desktop. Right-clicking the symbol opens the following options:

- ▶ Show video only if I'm free

(*Lync*) presence based behavior of *EntryControl*

- ▶ Video

Here, all available intercom devices for which access has been granted are listed.

► Main Door (example)

Name of the available door. Selection shows the video stream. The door can be opened here.



Image 3.13: Display of the Intercom Device Video

► Open Door Main Entrance

Direct opening of the door without accessing the video stream.

► Exit

Terminates *EntryControl* on the client.

## 4. Configure IP-BOLD

The Alphatech IP-BOLD intercom device is used to make a call via SIP to users in Lync / Skype for Business. Since Microsoft requires special handling of SIP calls, a certified gateway or SBC must be used to translate between IP-BOLD and the Microsoft servers. OfficeMaster Gate from Ferrari electronic AG is such a device which is available both as separate hardware appliance or as a virtual SBC. As soon as a client detects an incoming call from an intercom device with camera, OfficeMaster EntryControl will show the video window.

The following screenshots will show typical configuration settings of an IP-BOLD device used together with EntryControl:

The screenshot displays the configuration page for an IP-BOLD device. The header shows 'ALPHATECH TECHNOLOGIES s.r.o.' and 'IP BOLD'. A navigation menu on the left includes 'Current status', 'Network setting' (with sub-items 'Network', 'SIP parameters', and 'Web server'), 'Basic settings', 'Extended settings', 'Service', and 'Video camera'. The main content area is titled 'SIP parameters' and contains the following settings:

- SIP mode:** SIP server (dropdown)
- Display name:** IP Bold Device
- Account:** 940
- Auth. Id:** (empty field)
- Password:** (empty field)
- Send register:**
- Registration server:** 10.6.2.5
- Port:** 5060
- Expiration [sec]:** 600
- Registrate after restart:**
- SIP server:** (empty field)
- Port:** 5060
- Outbound proxy:** (empty field)
- Port:** 5060
- SIP Transport:** UDP (dropdown)
- Provisional code:** 183 Session progress (dropdown)
- Enable Symmetric RTP:**

At the bottom of the configuration area, it states 'Registration successful'.

Image 4.1: SIP mode „SIP server“ is used with registrar

The phone number („960“ in this example) must be translated by the SIP to SIP device (Gateway or SBC) to a full E.164 Tel. URI which is configured for the corresponding Lync Analog Device.

Example: +49332845590

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**Audio codecs**

Priority 1: G711a ▼  
 Priority 2: G711µ ▼  
 Priority 3: ---- ▼  
 Priority 4: ---- ▼  
 Priority 5: ---- ▼  
 Jitter compensation [msec]: 100

Image 4.2: G.711 alaw should be set as preferred codec

In Europe G.711 alaw should be set as highest priority.

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**Video**

Image size: 640 × 480 ▼  
 Images per second: 15 ▼  
 Brightness:   
 Contrast:   
 Colour:   
 Hue:   
 Auto white balance:   
 Gamma:   
 Power line frequency: 50 Hz ▼  
 White balance:   
 Sharpness:   
 Auto exposure: Software Mode ▼  
 Exposure:

Image 4.3: Setting video size and frame rate