

Programming instructions

KochCloud (door communication over the Internet)

kochcloud.ch



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Introduction

KochCloud is nothing more than an IP-PBX on the Internet. The KOCH Video Cloud-Gateway AVC1 connects to only this IP-PBX via an Internet connection (provided by the customer). All functions of the Gateway and its settings are stored in the KochCloud in a so-called project.

Settings and programming, such as creating and changing call destinations or huntgroups, are made via the KochCloud web interface. Rene Koch AG can access the KochCloud project during the whole set-up phase, afterwards the company only has access if the customer authorises it, e.g. in a service case.

Once the order has been processed at Rene Koch AG and the device is ready to ship, a **Project Invitation** is automatically emailed to the customer. By accepting this invitation, the customer takes over the project as an administrator and is able to invite other users and grant them corresponding permissions.

Users can (manually) join the project through hardware authentication, even without an invitation. Refer to "Join project", page 5.

The user must first register on kochcloud.ch to be able to use either form of access.

After installing the device, the KochMobile app (iOS or Android) needs to be downloaded from the respective store and connected to the KochCloud project by QR code.

KochMobile is also available as a desktop version for Windows:

[KochMobile Desktop Latest \(kochcloud.ch\)](http://KochMobile_Desktop_Latest(kochcloud.ch)) oder www.kochag.ch/downloads > [Dokumentgruppe](#) > [Software](#)

Alternatively, third-party devices can also be integrated as long as they are compatible with TLS encryption.

Create an account (register)

To be able to manage KochCloud projects, the person responsible must register and log in first. They then can configure the customer specific settings for the project via their account. Project-settings are set and stored in KochCloud web interface and will be synchronised to the Cloud-Gateway AVC1 after.

Every change is logged in the background.



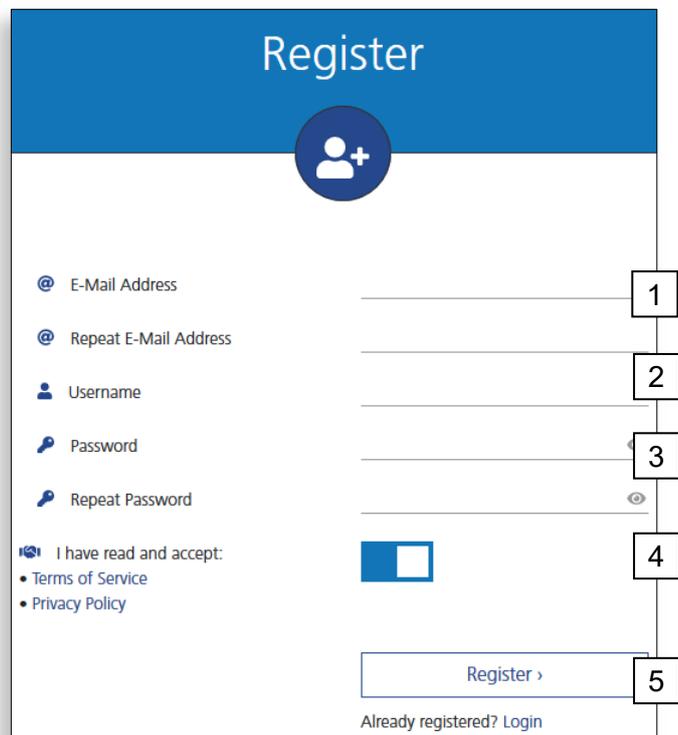
1. Set language, if necessary
2. Select *Register*

A valid e-mail address must be entered when registering, in order to receive a confirmation link.

The account cannot be used without this confirmation.

1. Enter your own e-mail address and then repeat it
2. Enter your first name and last name
3. Enter a suitable password and then repeat it (*min. 8 characters, 1 lowercase and 1 uppercase letter, 1 number and 1 special character +*ç%&/()*)
4. Accept the Terms of Service and Privacy Policy
5. Click on *Register*

We will send you an e-mail with the confirmation link in the next few minutes.

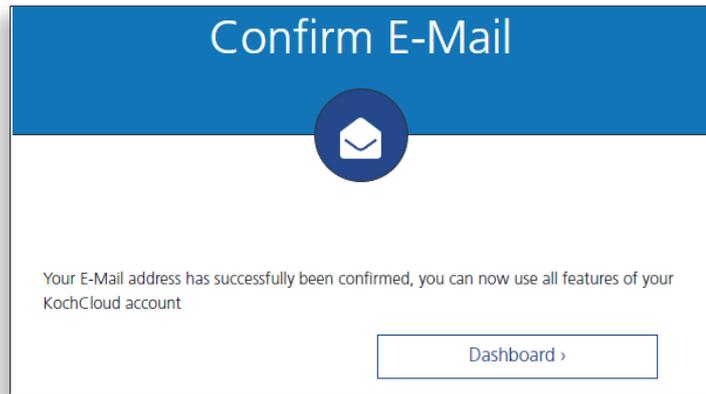
A screenshot of the "Register" form. The form has a blue header with the word "Register" and a user icon. Below the header are five numbered steps: 1. E-Mail Address, 2. Repeat E-Mail Address, 3. Username, 4. Password (with a "Repeat Password" field below it), and 5. A checkbox for "I have read and accept:" with links for "Terms of Service" and "Privacy Policy". At the bottom is a "Register >" button and a link for "Already registered? Login".

6. In the e-mail click on:

Confirm Account

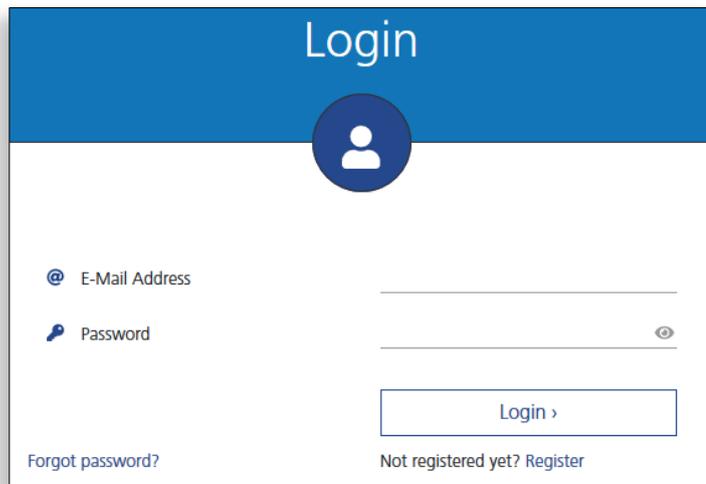
Confirm E-mail

Once your e-mail address has successfully been confirmed, this screen will appear and you can navigate to the Dashboard (Project overview)

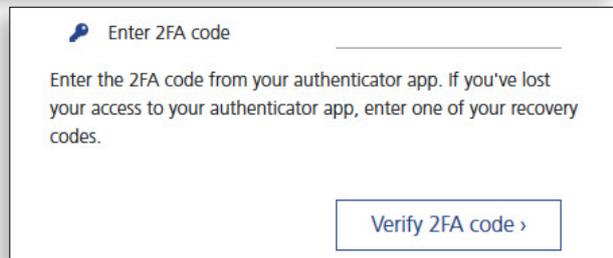


Login

To edit projects, you need to log into the KochCloud using your registered e-mail and password.



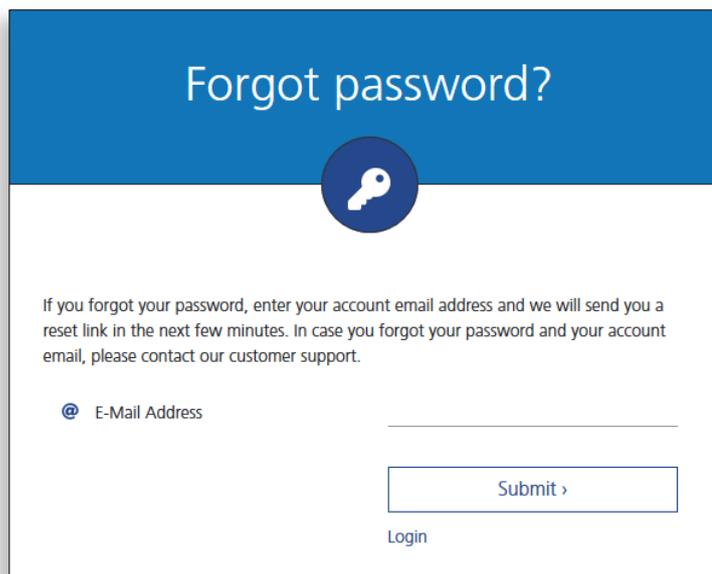
When two-factor-authentication is enabled, the 2FA code check follows. (to enable, refer to "Two-factor-authentication", page 7)



Forgot password?

Simply enter your e-mail and click on Submit.

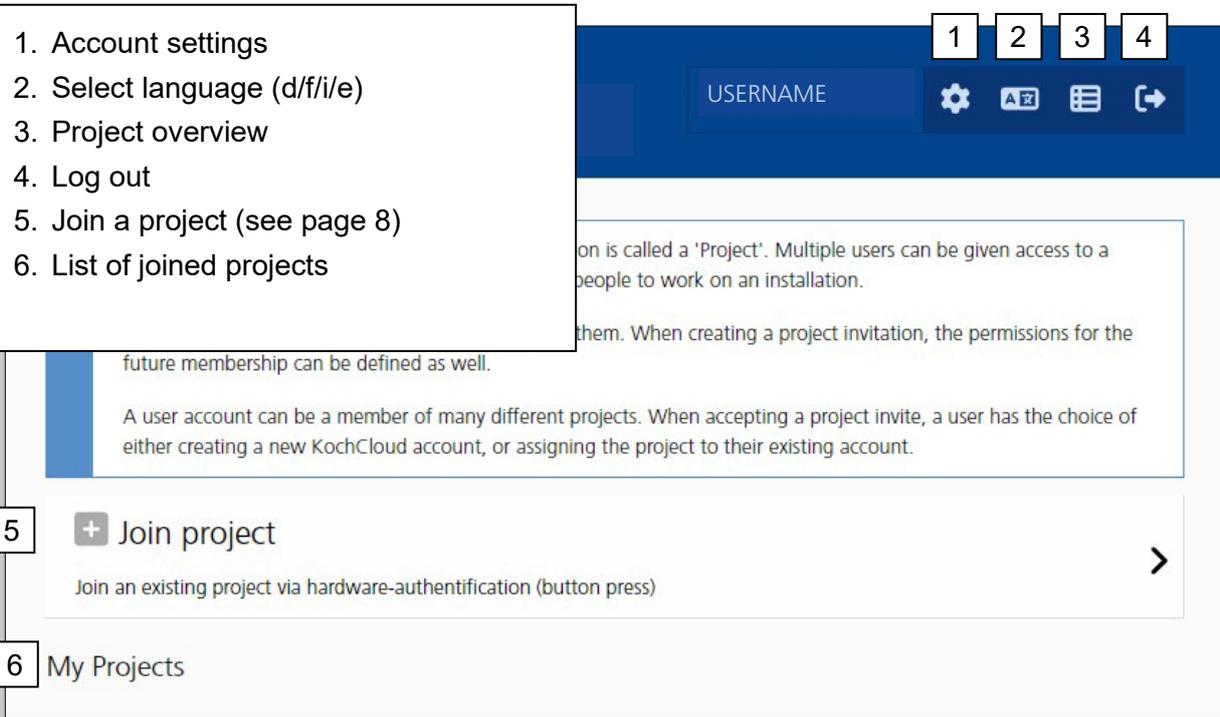
In case you forgot your account email address, please contact our customer support.



Homepage / Dashboard

After logging in, the User will be redirected to the dashboard. This is the start page for all other project-related actions.

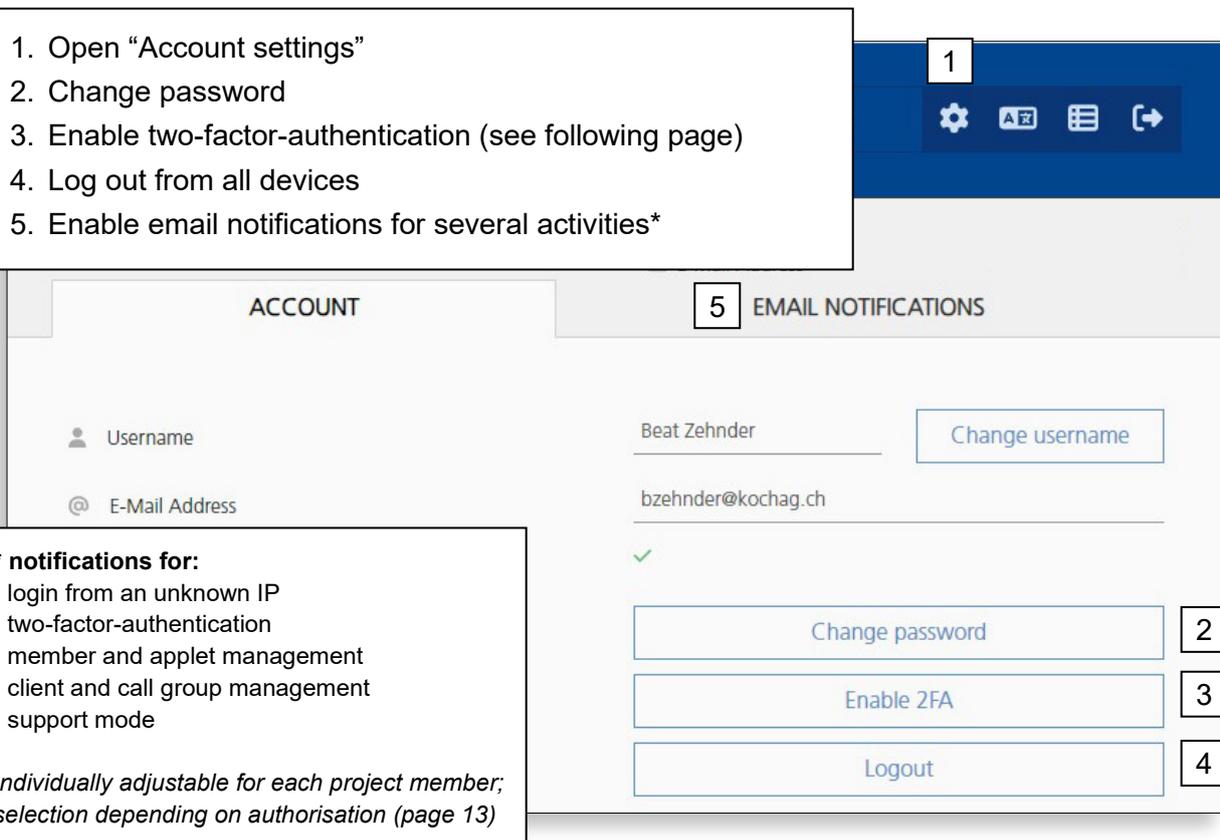
1. Account settings
2. Select language (d/f/i/e)
3. Project overview
4. Log out
5. Join a project (see page 8)
6. List of joined projects



The screenshot shows the dashboard homepage. At the top, there is a dark blue header with a 'USERNAME' field and four icons: a gear (1), a language selector (2), a list icon (3), and a refresh icon (4). Below the header, there is a main content area with text explaining projects and a 'Join project' button (5) with a right arrow. At the bottom, there is a 'My Projects' section (6).

Account settings

1. Open "Account settings"
2. Change password
3. Enable two-factor-authentication (see following page)
4. Log out from all devices
5. Enable email notifications for several activities*



The screenshot shows the 'ACCOUNT' settings page. The 'EMAIL NOTIFICATIONS' tab (5) is selected. It displays the user's name 'Beat Zehnder' and email 'bzehnder@kochag.ch'. There are three buttons: 'Change username', 'Change password' (2), 'Enable 2FA' (3), and 'Logout' (4). A green checkmark is visible above the 'Change password' button.

*** notifications for:**

- login from an unknown IP
- two-factor-authentication
- member and applet management
- client and call group management
- support mode

Individually adjustable for each project member; selection depending on authorisation (page 13)

Two-factor-authentication (2FA)

In addition to a secure KochCloud password, it is recommended to activate the two-factor authentication. This requires a smartphone or PC with an Authenticator app (e.g. from Microsoft or Google).

1. Install your preferred authenticator app on your smartphone or PC
2. Use the shown QR-Code or Key to setup your authenticator app to show the 2FA code (TOTP)
3. Enter the shown 2FA code and your KochCloud password here
4. Confirm the activation by clicking «Activate two-factor-authentication»

Enable two-factor-authentication ×

Use the key or scan the QR code to set up your Authenticator app, then enter the 2FA code and your current password below to activate two-factor-authentication

2

Examples of authenticator apps are:
[Google Authenticator](#)
[Authy](#)

Cant' scan the code?

Use the following data to add the entry manually.

Account: kochcloud.ch:user@domain.com

Key: PBTLP54K6HSPJE36YS2LDYUPPM36DGGE  2

Time based: Yes

 2FA code 3

 Password 

4
Discard Activate two-factor-authentication

Join project (hardware authentication)

It is possible to join a project by hardware authentication (e.g. for on-site support or a change of administrator) without e-mail invitation. However, in addition to physical access to the AVC1, an account on kochcloud.ch is required.

1. Log in to kochcloud.ch (register first if necessary)
2. Click on the *Join project* button in the Project-Overview (the following window will pop up)

3. Enter the 6-digit serial number of the AVC1. The serial number sticker is located on the inside of the device's top lid.

4. Click *Submit*
Leave the dialogue window open for the next steps.

5. Press the white key inside the AVC1 within 10 minutes.

The AVC1 verifies the entered serial number on kochcloud.ch and a message confirming the access will appear.

6. Click on *Continue to project*

Join project

You can join a KochCloud project by pressing a button on the AVC1 in your local installation. To do so, please enter the 6-digit serial number of the device. The serial number sticker is located on the inside of the device's top lid

Serial number 999999

Submit >

<< Overview

Further notes

If the white button was not pressed within 10 minutes, the authentication must be restarted. Reload kochcloud.ch and repeat from point 2.

Project members cannot remove themselves from a project (except KOCH employees).

Since in theory anyone can have full access to a KochCloud project by hardware authentication, **the control cabinet with the AVC1 Gateway must not be accessible to unauthorised persons!**

Join project

Successfully joined project, you are now listed as an administrator for this project

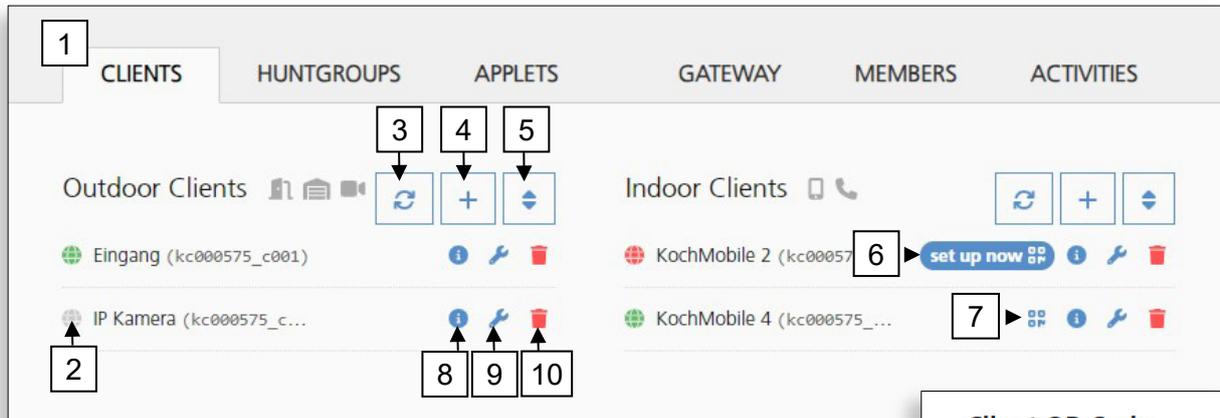
Continue to project >

Clients overview

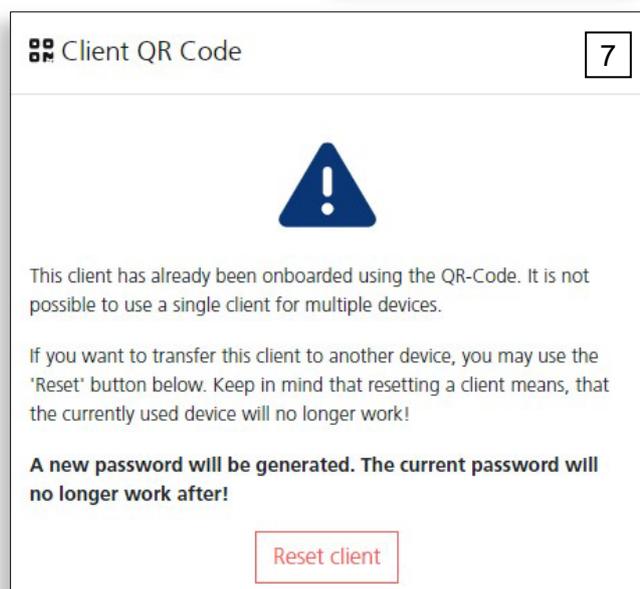
Clients are users of the KochCloud, usually TC:Bus outdoor intercom stations, IP cameras or devices with the KochMobile app (iOS/Android/Windows) installed.

Third-party devices can also be integrated as clients. In order for them to work, they must be able to establish an encrypted SIP connection via TLS.

1. After opening a project from the Dashboard, click the *Clients* tab to see this page.



2. Client status: green=online / red=offline / grey=IP camera
3. Reload status of the clients
4. Add new client (refer to page 12)
5. Change sequence of clients
6. Set up & pair a client. Display QR code and scan with the KochMobile app (pairing option details, see next page)
7. Disconnect/reset client
8. Display information/access data as plain text, e.g. for manual connection of third-party devices without the app (requires client ID and password)
9. Change client settings (e.g. profile name, AS address, etc.)
10. Completely delete client



11. Client pairing options

When scanning this QR-Code by Smartphone, Koch-Mobile will start and immediately pair with the client data. If the KochMobile app is missing on the scanning device, you will be redirected to the download page and the corresponding store pages (App Store /Google Play).

Further options:

1. Copy the QR code link as text to the clipboard.
2. Send complete pairing information to any email address.
3. Directly open up and pair KochMobile Desktop* with client data on current device. (*if already installed on this computer).

[KochMobile Desktop Latest \(kochcloud.ch\)](https://www.kochcloud.ch) or www.kochag.ch/downloads >Dokumentgruppe >Software

Client QR Code



<https://kochcloud.ch/link/>  1

E-Mail Address  2

Desktop App  3

Create/edit (outdoor) clients

1. To add a new outdoor intercom station or IP camera, click on + next to *Outdoor Clients* in the *Clients* tab



2. Enter a name for the device, e.g. "Main entrance"
3. Accept or change the device ID (1–999)
4. Select device type (*TC:Bus outdoor intercom station* or *IP camera**)
5. Show outdoor client in the KochMobile app in contacts (recommended)
6. Enter the TC:Bus outdoor intercom station AS address (0–63)
7. Use standard door opener command (sends door opener command with AS address to TC:Bus) or enter HTTP command
8. The H.264 video stream of the AVC1 is used for the "Video source in call".
9. For "Video source at home" *MJPEG Video* or *Single Frame* can also be selected (instead of *AVC1/TC:Bus*). *In this case*, add the path, username and password of the corresponding video stream.
10. For IP cameras separate to TC:Bus *MJPEG Video* or *Single Frame* can be selected as "Video source at home" and the path, username and password of the corresponding video stream can be entered.

* For IP cameras outside the TC:Bus system, select device type IP camera

Create/edit (indoor) clients

1. To create a new indoor station (mobile device or PC), click on + next to *Indoor clients* in the *Clients* tab

2. Enter a name for the device, e.g. "PhoneX first name"
3. Accept or change the device ID (1–999)
4. Automatically generate or manually enter a password
5. Select device type *KochMobile* or *third-party device*
6. Show indoor client in the KochMobile app in contacts (optional)
7. Save or discard entries

Create and manage huntgroups

In the *Huntgroups* tab clients can be assigned to huntgroups. An ID and TC:Bus serial number are allocated to each group. Making a doorcall to the according TC:Bus serial number, or a SIP call to the Group ID will make all the devices in this huntgroup ring.

To create a new Huntgroup, open the *Huntgroups* tab and click the +

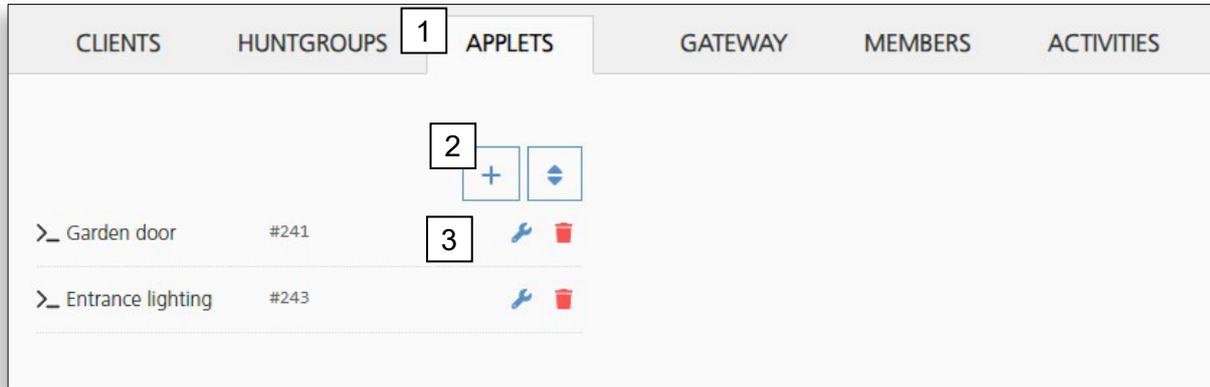
1. Accept or change the Huntgroup name, e.g. Call Group 1
2. Accept or change the Huntgroup ID (1–999)
3. The 6-digit TC:Bus serial number is automatically generated from the ID counter but can be changed
4. Show huntgroup in the KochMobile app in contacts (optional)
5. Select the clients that should be in the Huntgroup (click on them)
6. Save or discard entries

- 1
- 2
- 3
- 4
- 5
- 6

Create and manage applets

The Video Cloud Gateway AVC1 can be used to send TC:Bus control functions (e.g. open garage door, switch on lights) and/or HTTP commands. These applets can be configured in the *Applets* tab, and can then be executed in the KochMobile app.

1. Open the *Applets* tab in the project



2. Create a new applet
3. Edit/delete an applet
4. Name the applet
5. Choose the applet type (AVC1 or HTTP)
6. Select the TC:Bus command or HTTP methods
7. Add specific parameters depending on the command or method
8. Save or discard entries

The 'Create applet' dialog box is shown with the following fields and values:

- Applet name: My custom applet (4)
- Applet type: AVC1 Command (5)
- Command: Open Door (6)
- AS Address: Open Door (7)
- Other options in the AS Address dropdown: Light, Control function, Step Camera, Switch Camera (8)

The 'Create applet' dialog box is shown with the following fields and values:

- Applet name: My custom applet (4)
- Applet type: HTTP Request (5)
- Method: GET (6)
- Target: http://mysmartlock/open_door (7)
- Buttons: Discard (red), Save (green) (8)

Project Overview / Gateway Settings

The Project Overview displays the project's metadata, the gateway's online status and network settings as well as the status and the buttons for *Sync Gateway* and *Support mode*.

In the *Gateway* tab, TC:Bus parameters can be managed and the AVC1 gateway can be restarted. The codes for DTMF triggers (for third-party devices) are also selected here.

The screenshot shows a web interface for 'Project Overview / Gateway Settings'. At the top, there is a navigation bar with a home icon, a 'USERNAME' field, and several utility icons. Below this, the main content area is divided into several sections:

- Project Overview (1):** Displays project details: 'Marketing, Seestrasse 241, Au ZH'.
- Project Metadata (2):** A table showing: Project nr. #575, VG-Nr. 000000, and Project tier KochCloud M.
- Gateway Information (3):** A table showing: Gateway AVC1, MAC Address 50:E0:C7:0E:FB:E1, IP Address (local) 192.168.0.37, and Software Version 1.2.6-5.
- Control Buttons (4, 5):** Two green buttons: 'Sync Gateway' (with a checkmark icon) and 'Enable Support-Mode' (with a wrench icon).
- Navigation Tabs:** CLIENTS, HUNTGROUPTS, APPLETS, GATEWAY (selected), MEMBERS, ACTIVITIES.
- AVC1 / TC:Bus (7):** A list of settings with sliders and checkboxes: Talking Time (56), Talking time after door opener (3), Always send long door opener (checkbox), Enable error tones (checkbox), Full-Duplex Mode (checkbox), and Store Call-History Images (checkbox).
- DTMF (8):** A list of DTMF triggers with input fields: DTMF Open Door, DTMF Hang Up (9), and DTMF Light (8).
- Gateway Control (6):** A power button icon for restarting the gateway.
- Save Button:** A 'Save' button at the bottom center.

1. Project name
2. Metadata of the open project
3. Status and network data of the project gateway
4. Button *Sync Gateway*; to sync modified project data with the gateway
5. Button *Support mode*. Support mode is automatically deactivated 5 days after confirmation of the project invitation. After that, only the customer can reactivate support mode if online support from KOCH is required at a later date.
6. Button *Gateway restart*
7. Parameter TC:Bus
8. Parameter DTMF (only for third-party devices)

Manage project members

Right after the project has been approved, the owner of the e-mail address confirmed when the project was **created** is the only member of the project and has all the permissions.

They can now invite other project members via the *Members* tab and assign them specific permissions or transfer the entire project management.

The users invited will receive a link via e-mail, which they can use to join the project. They are prompted to create their own KochCloud account first, if they do not have one yet.

End-Users of the KochCloud Service do not need access to the project.

1. Open the *Members* tab in the project.

The screenshot displays the project management interface with the following components:

- Navigation Tabs:** CLIENTS, HUNTOGROUPS, APPLETS, GATEWAY, MEMBERS (active), ACTIVITIES.
- Invites Section:** A message box stating "There are no pending invites for this projects. Invites can be sent out to any e-mail address and allow a user to join this project either with an existing Koch Cloud account or by creating a new Koch Cloud account. After an invite has been redeemed, the user will be listed in the member's list below." A plus sign (+) button is next to it.
- Members List:** A table showing three members: User1@company.com, User2@company.com, and User3@company.com. Each member has a status indicator (green dots) and edit/delete icons.
- Invite to project Dialog:** A modal window for inviting a new member. It includes:
 - Recipient E-Mail:** A text input field containing "user@company.com".
 - Permissions:** A list of checkboxes for permissions: "Can access project", "Can manage project members", "Can manage SIP clients", "Can manage SIP huntgroups", and "Can manage applets".
 - Buttons:** "Discard" (red) and "Save" (green) buttons at the bottom.

2. Invite a new member
3. Edit/delete an active member
4. Enter an e-mail address for the invite
5. Enable permissions
6. *Save* or *discard* entries
(*Save* sends the invite)

Check activities

All manipulations to the project are logged in the *Activities* tab.
You can see who did what and when, if required.

The screenshot shows the 'Project Overview' for 'Marketing, Seestrasse 241, Au ZH'. The project name is 'KOCHAGTEST'. Key details include: Project nr. #575, VG-Nr. 000000, and Project tier KochCloud M. The Gateway is 'AVC1' with MAC Address '50:E0:C7:0E:FB:E1' and IP Address (local) '192.168.0.37'. The Software Version is '1.2.6-5'. Two action buttons are visible: 'Sync Gateway' (green) and 'Disable Support-Mode' (red). Below the overview are tabs for CLIENTS, HUNTGROUPS, APPLETS, GATEWAY, MEMBERS, and ACTIVITIES. The 'ACTIVITIES' tab is selected, showing a sub-tab 'MANAGEMENT' with sub-items 'CLIENTS' and 'CALLS'. The activity log shows four entries from October 15, 2024, detailing remote support actions by René Koch AG and KochAGTest.

Timestamp	Activity Description
15. Oct 2024 - 13:51	René Koch AG enabled remote support for Marketing, Seestrasse 241, Au ZH
15. Oct 2024 - 13:51	René Koch AG disabled remote support for Marketing, Seestrasse 241, Au ZH
15. Oct 2024 - 13:50	René Koch AG enabled remote support for Marketing, Seestrasse 241, Au ZH
15. Oct 2024 - 09:53	KochAGTest disabled remote support for Marketing, Seestrasse 241, Au ZH

Service

For answers to frequently asked questions go to FAQ at www.kochag.ch >>
(only available in German and French)

For direct support, please contact our technical customer support



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sehen hören sprechen
voir entendre parler