:hager

EN

TJA560

IoT Controller
Installer Manual

01/2018 – 6LE005108C

1. INTRODUCTION

The descriptions provided in this manual are intended to familiarise the installer with the IoT Controller provided by Hager.

The procedures described in this manual are intended to help the installer with IoT Controller configuration during installation.

Product reference: TJA560

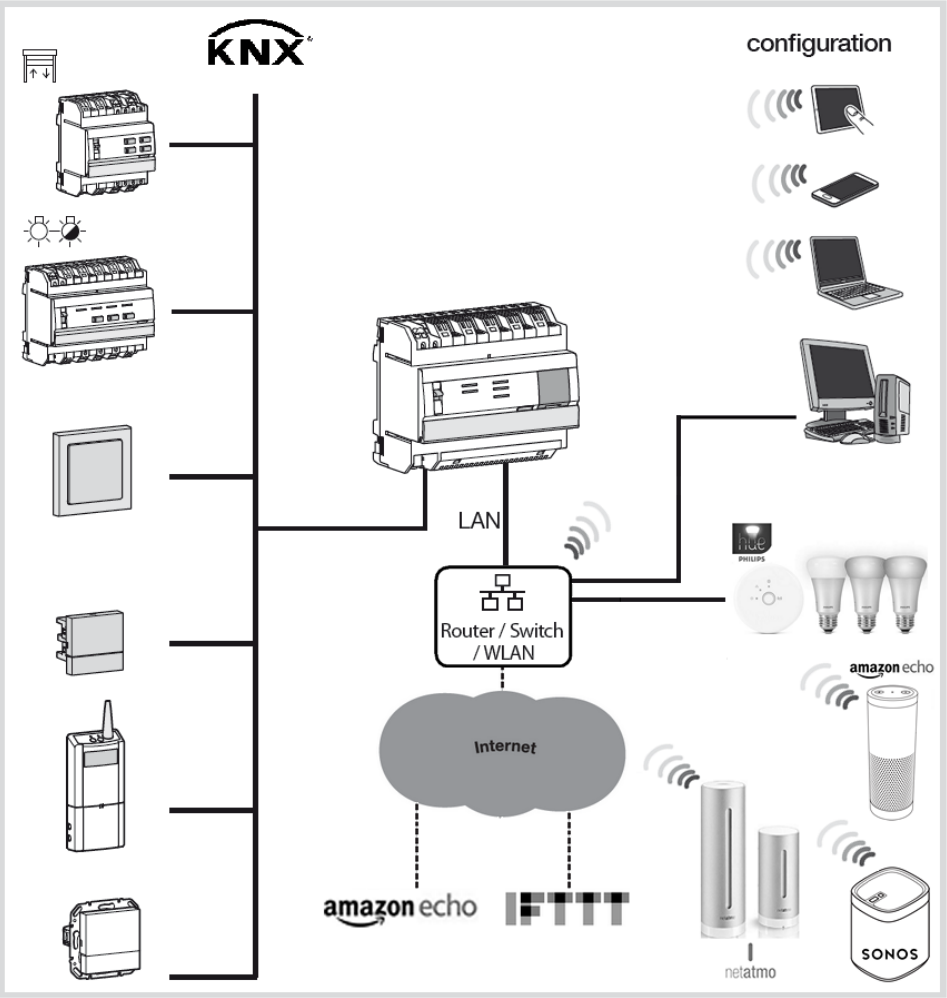
2. GENERAL INFORMATION

2.1 INTRODUCTION TO THE SYSTEM

The IoT Controller is a gateway between KNX products and third-party connected devices.
It allows access to all functionalities of non-KNX products with an IP connection. It can be installed on a new or existing installation and does not require the presence of a domovea server.
You can access the system configuration through a web browser.

2.2 SYSTEM OVERVIEW

The following diagram describes the physical architecture of an installation centred on an IoT Controller:



The system is based on two different networks:

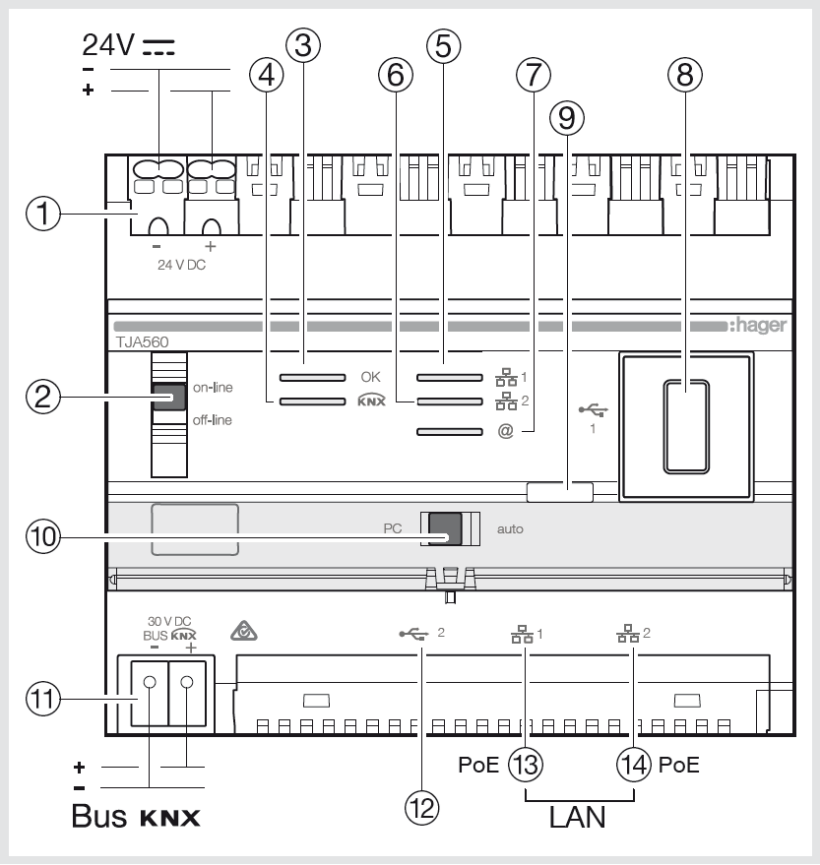
- The KNX network (cable, radio or mixed) on which all KNX sensors, actuators, switches, etc., are installed,
- The Ethernet network where all IP clients are connected to the LAN (local network): Connected devices for using functionalities, along with PC, touch screens, or Smartphones for the configuration.

2.3 THE IOT CONTROLLER

The TJA560 is a gateway between the KNX products and connected products from third-parties.
The product connects both:

• to the KNX bus via connector ⑪ ;

• and to the local IP network via the two Ethernet ports,⑬ or ⑭.



This software operates in conjunction with web browsers installed on tablets, smartphones and PCs.
OS compatibility: iOS 8, Android 4.4, Windows 8.1
Browser compatibility: IE11, Chrome 35, Firefox 37.

The following table recapitulates the interpretation of each LED

LED function	LED ref	Status	Description
Power	③	Off	Unit without power
		Blinks green	Unit start-up phase
		Lights up green	Unit started
		Blinks red	Unit supplied by the power reserve (10 s max)
		Lights up red	OS loading error
KNX	④	Off	Unit supplied by the power reserve (10 s max)
		Blinks green	Connected to the KNX bus - bus traffic
		Lights up green	Connected to the KNX bus – no bus traffic
		Lights up red	No KNX bus connection
Ethernet 1 and 2	⑤et⑥	Off	No network (or operating on power reserve – 10 s max)
		Blinks green	No DHCP server detected, operating on fallback IP address
		Lights up green	Network detected and IP address allocated
		Lights up red	IP address conflict
		Blinks red	Waiting for IP address allocation
Portal	⑦	Off	No Hager portal connection
		Blinks green	Hager portal connection attempt
		Lights up green	Hager portal connection established
		Lights up red	Hager portal connection inaccessible or connection refused
Bus voltage present	⑨	Lights up red	Check the bus voltage with a short press of button ⑨. Red LED lit indicates KNX bus present.

2.4 SOFTWARE VERSION UPDATE FOR THE CONFIGUARATION SERVER

It is mandatory to update the IoT Controller software version before any first use.

The update is carried out **Automatically** when the IoT Controller is connected to an Internet box.

Connection to the network and the remote server is made automatically for the update (see chapter 5.8.7 for configuration of the automatic update).

2.5 AUTO/ROUTER FUNCTIONALITY

The ⑩ switch lets you select the operating mode for the Ethernet network.

Switches		Ethernet port behaviour			
SEL	COM	Ethernet Port 1	Ethernet Port 2	Hager Portal	KNX Bus
Auto	On-line	**This is the normal operating mode when the IoT Controller is connected to an external router.** The 2 ports are interchangeable and configurable in DHCP or in static IP. - With a client DHCP (default factory set mode), the IoT Controller waits for an IP address coming from a DHCP server connected to the network (the router). If, after 40 seconds, no address has been attributed, the IoT Controller automatically takes the fallback address: 192.168.0.252 - With a static IP address, the configuration server immediately recognises the settings defined in the “server configuration - Internet” tab in the configurator settings menu: • Interface IP address • Sub-network mask • Default gateway address Warning: Even in the case of an IP address conflict on the network (other equipment already using the defined IP address), the module does not automatically switch to the fallback address.		Connected	Connected
	Offline	This mode is a fallback mode in which the 2 ports are interchangeable. Therefore, they are automatically configured in client DHCP. - If no IP address is attributed by a DHCP server after a wait of 40 seconds, the IoT Controller automatically assumes the following fallback address: 192.168.0.252.		Disconnected	Disconnected
PC	On-line	**To use when a PC is directly connected to the IoT Controller.** This mode activates the DHCP server built into the module. The 2 ports are interchangeable and configured with the following parameters: - Interface IP address: 192.168.0.252 - Sub-network mask: 255.255.255.0 - Default gateway address: 192.168.0.1		Connected	Connected
	Offline	This mode is a fallback mode. The 2 ports are interchangeable and configured in client DHCP. - If no IP address is attributed by a DHCP server after a wait of 40 seconds, the virtual interface of the IoT Controller module automatically assumes the following fallback address: 192.168.0.253		Disconnected	Disconnected

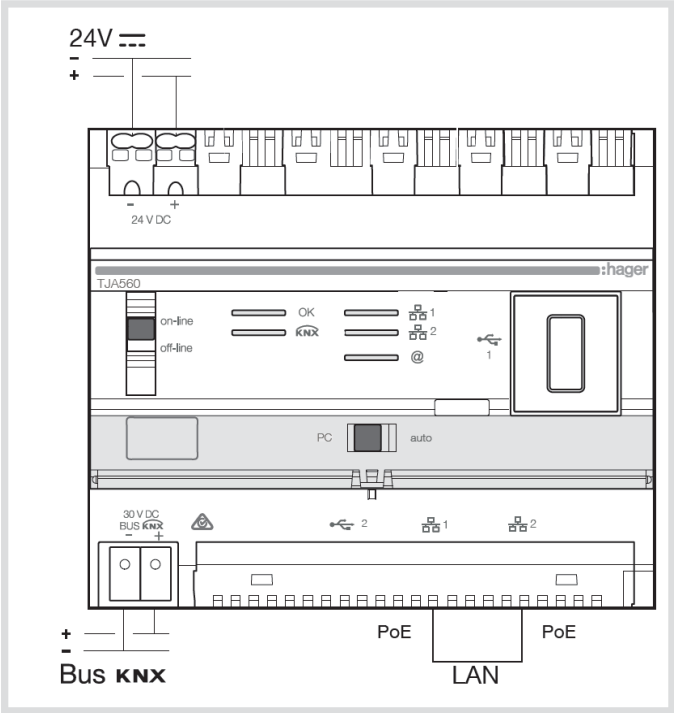
2.6 TECHNICAL SPECIFICATIONS

KNX power supply	KNX bus SELV 30 V =
Safety extra-low voltage	24 V = via power supply SELV Hager TGA200 or TXA114 or via PoE
Consumption on the bus line	10 mA max - 30 V =
Consumption on the auxiliary power supply	200 mA max - 24 V=
Standard/Standby consumption on the KNX bus	8 mA
Standard/Standby consumption on the 24 V Ethernet and non-connected USB	100 mA
Maximum dissipation (24V output)	5W
PoE power supply consumption	50 mA
Backup duration for the date and time	1 year minimum
Ethernet network communication	2 x 100/1000 BaseT
Bus connection ⑪	0.6 - 0.8 mm²
Power supply socket ①	0.75 - 2.5 mm²
Ethernet/IP network socket ⑬ ⑭	2 x RJ45
Operating T°	0 °C —> + 45 °C
Storage T°	- 20 °C —> + 70 °C
Footprint	6 x 17.5 mm
USB2 Interface ⑧ ⑫	2
Installation method	DIN rail
Operating altitude	< 2000 m
Pollution level	2
Surge voltage	4 kV
Protection rating (box) (box under faceplate)	IP20 IP30
Impact resistance	IK04
Overvoltage category	III
Standards	EN 60950-1, EN 50491-3, EN 50491-5-2, IEE 802.3 at, USB 2.0, Handbook KNX 2.1

3. INSTALLATION

3.1 PHYSICAL INSTALLATION

The IoT Controller TJA560 must be installed in the distribution board or in the VDI box (Voice, Data, Images).



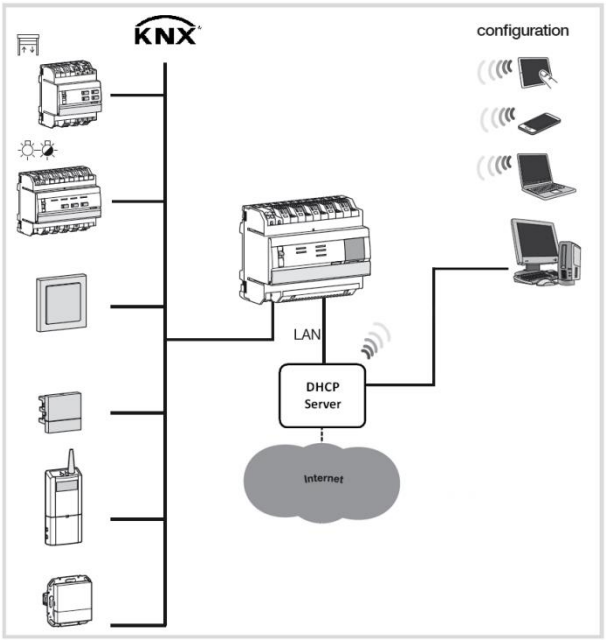
The IoT Controller can also be connected to a PoE (Power over Ethernet) network

If there is no VDI distribution board, the server can be installed in the electric distribution board. In this case, the ELV (Extra Low Voltage) and SELV (Safety Extra Low Voltage) connections must be properly secured.

3.2 NETWORK INSTALLATION

3.2.1 INSTALLATION BEHING A DHCP SERVER

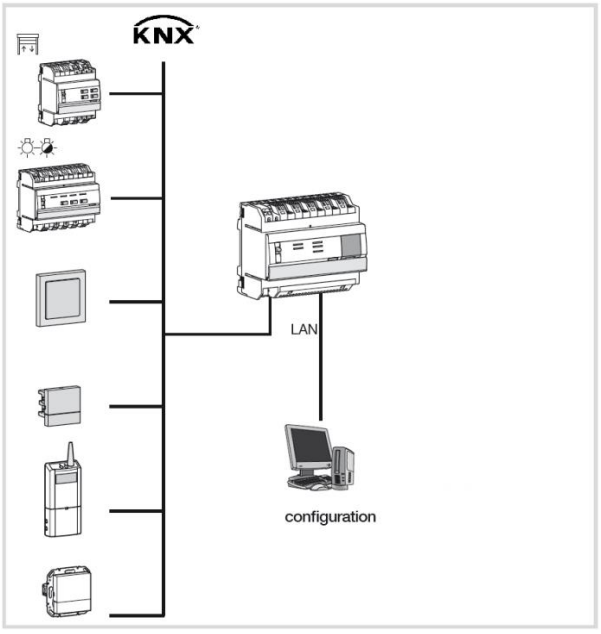
The IoT Controller is connected to a DHCP server (router or any other device having a DHCP functionality). In this case, the IoT Controller automatically obtains an IP address coming from the DHCP server.



3.2.2 INSTALLATION WITHOUT A DHCP SERVER

It is possible to connect the IoT Controller directly to the installer's PC. In this case, the vertical switch must be placed in the **on-line** position and the horizontal switch in the **PC** position. This mode activates the DHCP server built into the module. The 2 ports are interchangeable and configured with the following parameters:

- Interface IP address: 192.168.0.252
- Sub-network mask: 255.255.255.0
- Default gateway address: 192.168.0.1



3.3 SOFTWARE INSTALLATION

3.3.1 IOS AND ANDROID: INSTALL THE LAUNCHER

The launcher is an application that can find the IoT Controller IP address.
It is available for iOS and Android and can be downloaded from the Apple Store and the Play Store.

Once the application is launched

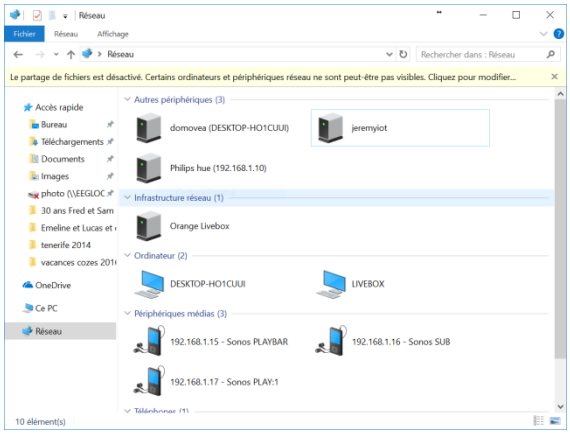
- Select your IoT Controller
- The name of your IoT Controller will appear (its default name)
- Your platform's web browser will open the configuration page for your IoT Controller
- The connection will also initiate the "push notifications" functionality in addition to the Apple Watch connection on iOS.

3.3.2 WINDOWS

From any other platform, including a PC using a Windows operating system, open your web browser and enter your IoT Controller's IP address.

There are several ways to find your IP address

- From the "network" page in the Windows configuration panel, double click the IoT Controller



- From your router's configuration page (Livebox, Freebox, Fritzbox, etc.)

4. EXAMPLE FOR CONFIGURING A PROJECT

To make understanding easier, this chapter will outline a concrete example representative of most cases.

Example of a home with various applications:

- Phillips Hue command: ON/OFF + Variation in light brightness + Changing colour.
- Sonos command: Play/Pause + Volume
- Netatmo weather station: displays indoor and outdoor temperature
- Create a scene for musical ambiance in the living room
- Create the event to play this scene from a push button
- Create an event that sends an email notification if the alarm is triggered
- Play a scene depending on the user's geolocalisation
- Play a scene launched by a vocal commend sent through Amazon Echo

To command the various modules, the various group addresses must be defined

Modules	Commands	Group addresses	Format	DPT
Phillips Hue	On/Off	1/1/1	1 bit	1.001 switch
	Luminosity	1/1/2	4 bit	3.007 dimming control
	Colour	1/1/3	1 bit	1.001 switch
Sonos	Play/Pause	2/1/1	1 bit	1.001 switch
	Volume	2/1/2	4 bit	3.x
Netatmo	Indoor temperature	3/1/1	16 bit	9.001 temperature °C
	Outdoor temperature	3/1/2	16 bit	9.001 temperature °C

For the scene, a group address must be defined that corresponds to the lighting in the living room. We will select the 4/1/1 address in the DPT 1.001 switch format. We must also define a group address corresponding to the push button that plays the scene. We will select the 4/1/2 address in the DPT 1.001 switch format.

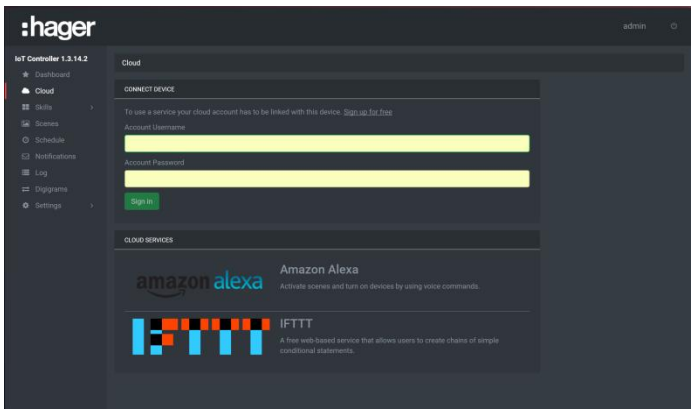
This is the same for the alarm, we must define a group address the corresponds to triggering the alarm. We will select the 5/1/1 address in the DPT 1.001 switch format.

The **I'm back** scene will be played when the user is within a radius of 500 m around the house (IFTTT module through user geolocation)

4.1 SKILLS CONFIGURATION

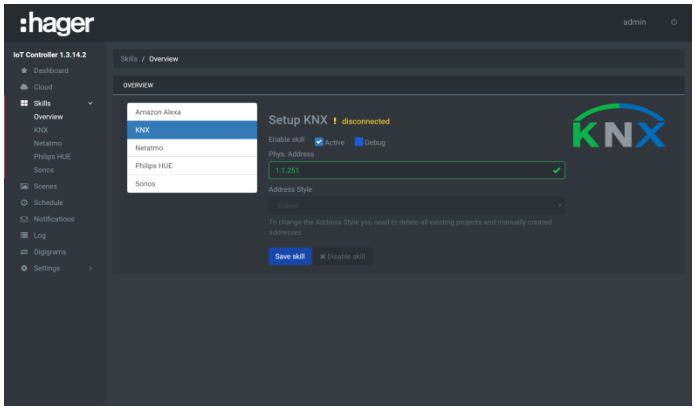
4.1.1 LINKING THE IOT CONTROLLER TO MYHAGER

To use the various services, your myHager account needs to be linked to the IoT Controller



- Click the **Cloud** tab
- Fill in the user name and password for your myHager account (or **click Sign up for free** to create a myHager account)

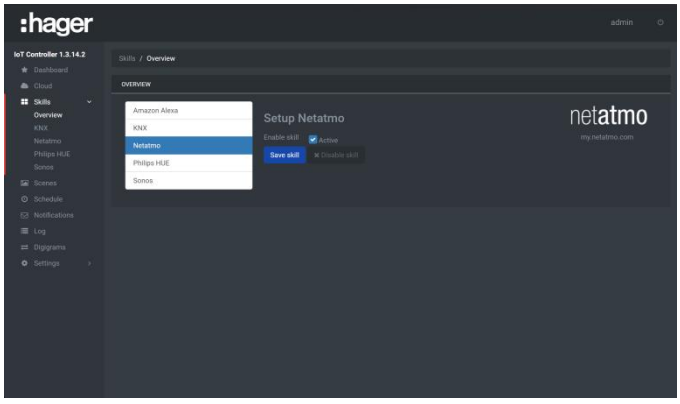
4.1.2 KNX SKILL



- Click the **Skills** tab then **Overview**
- Click the **KNX** tab
- Activate the KNX module
- Enter the KNX module physical address
- Select the group address style: Two or three levels
- Click **Save skill** to confirm

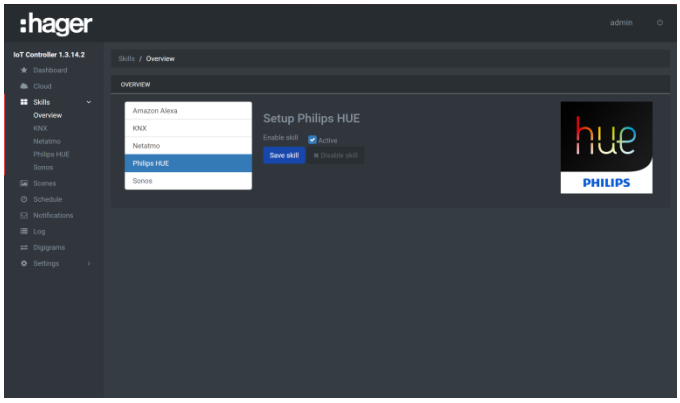
Refresh the HTML page to verify that the module is connected to the KNX bus

4.1.3 NETATMO SKILL



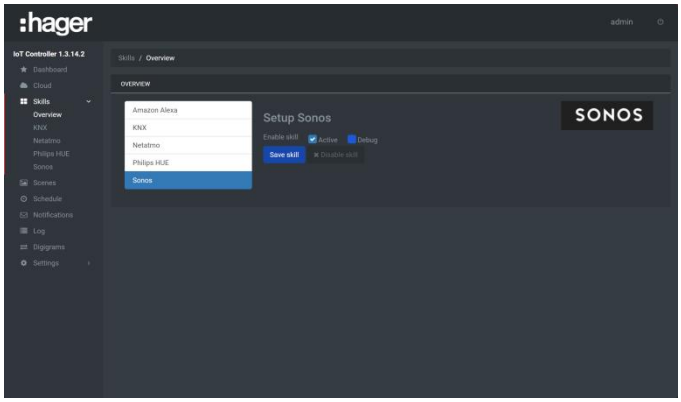
- Click the **Skills** tab then **Overview**
- Click the **Netatmo** tab
- Activate the Netatmo module
- Click **Save skill** to confirm

4.1.4 PHILIPS HUE SKILL



- Click the **Skills** tab then **Overview**
- Click the **Philips HUE** tab
- Activate the Philips HUE module
- Click **Save skill** to confirm

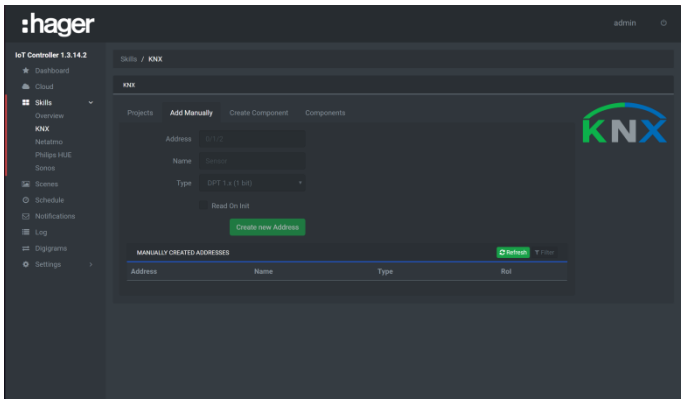
4.1.5 SONOS SKILL



- Click the **Skills** tab then **Overview**
- Click the **Sonos** tab
- Activate the Sonos module
- Click **Save skill** to confirm

4.2 SKILLS CONFIGURATION

4.2.1 KNX SKILL



- Click the **Skills** tab then **KNX**
- Click the **Add manually** tab
- Enter the group address: **1/1/1**
- Enter the object name: **ON/OFF**
- Select the type of object: **DPT 1.001 switch**
- Click **Create new address** to confirm

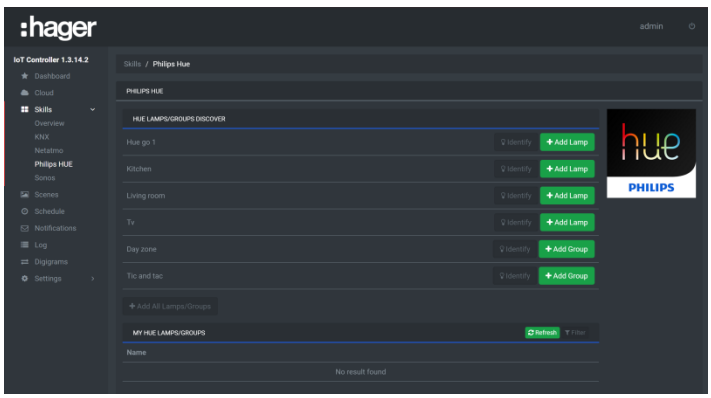
- Enter the other group addresses in the same way according to the following table:

Modules	Commands	Group addresses	Format	DPT
Phillips Hue	On/Off	1/1/1	1 bit	1.001 switch
	Luminosity	1/1/2	4 bit	3.007 dimming control
	Colour	1/1/3	1 bit	1.001 switch
Sonos	Lecture/Pause	2/1/1	1 bit	1.001 switch
	Volume	2/1/2	4 bit	3.x
Netatmo	Indoor temperature	3/1/1	16 bit	9.001 temperature °C
	Outdoor temperature	3/1/2	16 bit	9.001 temperature °C
Others	Living room light	4/1/1	1 bit	1.001 switch
	Music scene	4/1/2	1 bit	1.001 switch
	Alarm	5/1/1	1 bit	1.001 switch

It is also possible to import the KNX project configured using the ETS or TXA100 (See chapter 5.3.2)

4.2.2 PHILIPS HUE SKILL

- Click the **Skills** tab then **Philips HUE**

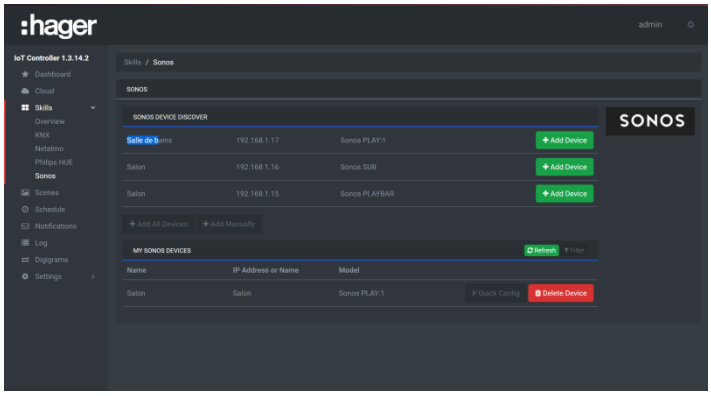


- Click **Pair bridge** to declare the module
- Click **Add Lamp** to add the desired lamp

- Click **Quick Config** to create links with the group addresses
  - Click **Select** on the **Turn On/Off** command
  - Select the **1/1/1 ON/OFF** address by clicking **Add**
  - Click **Save** to confirm
- Continue in the same way for addresses in groups 1/1/2 (brightness (4 bit) and 1/1/3 (colour loop)
- Click **Close** to confirm.

4.2.3 SONOS SKILL

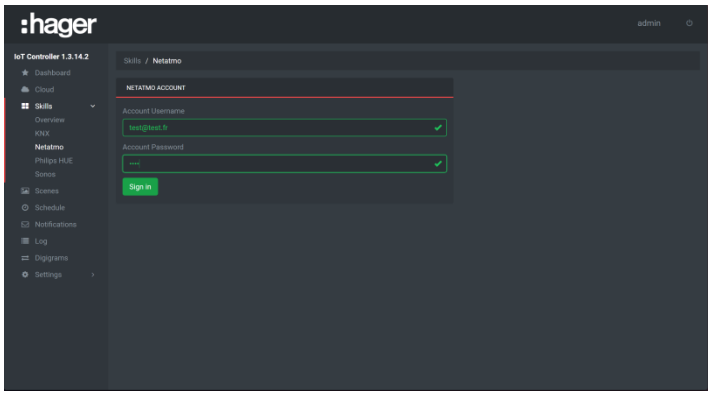
- Click the **Skills** tab then **Sonos**



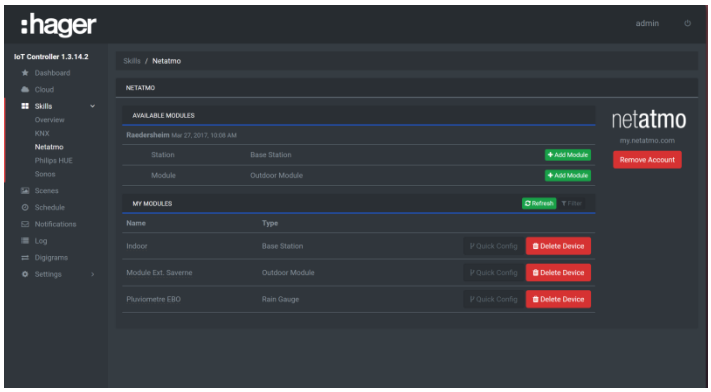
- Click **Add device** to add the desired module
- Click **Quick Config** to create links with the group addresses
  - Click **Select** on the **Play/pause** command
  - Select the **2/1/1 Play/pause** address by clicking **Add**
  - Click **Save** to confirm
- Continue in the same way for addresses in groups 2/1/2 (Raise/lower volume (4 bits))
- Click **Close** to confirm.

4.2.4 NETATMO SKILL

- Click the **Skills** tab then **Netatmo**



- Enter the Netatmo account username and password



- Click **Add module** for the **Indoor** detector for the indoor temperature
- Click **Add module** for the **Outdoor** detector for the outdoor temperature
- Click **Quick Config** for the **Indoor** detector to create links with the group addresses
    - Click **Select** for the **Temperature** information
    - Select the **3/1/1 Indoor temperature** address by clicking **Add**
    - Click **Save** to confirm
- Click **Close** to confirm.
- Click **Quick Config** for the **Outdoor module** to create links with the group addresses
    - Click **Select** for the **Temperature** information
    - Select the **3/1/2 Outdoor temperature** address by clicking **Add**
    - Click **Save** to confirm
- Click **Close** to confirm.

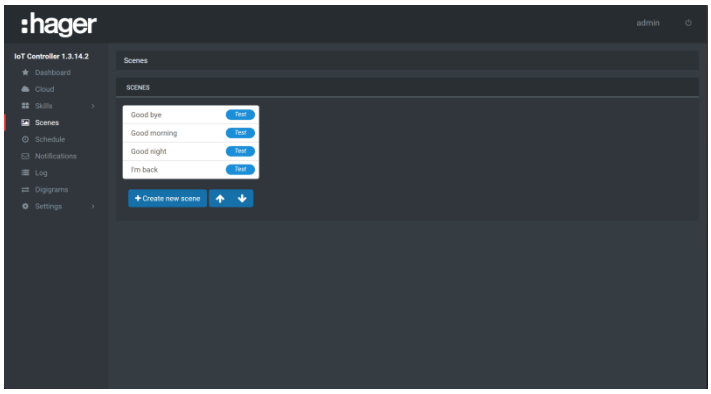
4.3 CREATE A SCENE

To create a scene, you must define the various actions to carry out. Below is the list of actions for the **Music** scene:

- Turn off the lighting in the living room
- Turn on the Philips Hue lamp with the predefined brightness and colour.
- Start playing music with the predefined volume level.

To create this scene, follow the example:

- Click the **Scenes** tab



- Click **Create new scene**
- Enter the name of the scene to create: **Music**
- Click **Action**
  - Select the **4/1/1 Living room light** address in the **KNX** folder
  - Set the switch to OFF to turn it off
- Click **Action**
  - Select the **Turn on** command in the **Hue** directory
- Click **Action**
  - Select the **Colour** command in the **Hue** directory
  - Set the desired colour
- Click **Action**
  - Select the **Brightness** command in the **Hue** directory
  - Enter the desired brightness value
- Click **Action**
  - Select the **Play** command in the **Sonos** directory
- Click **Action**
  - Select the **Volume** command in the **Sonos** directory
  - Enter the desired sound volume

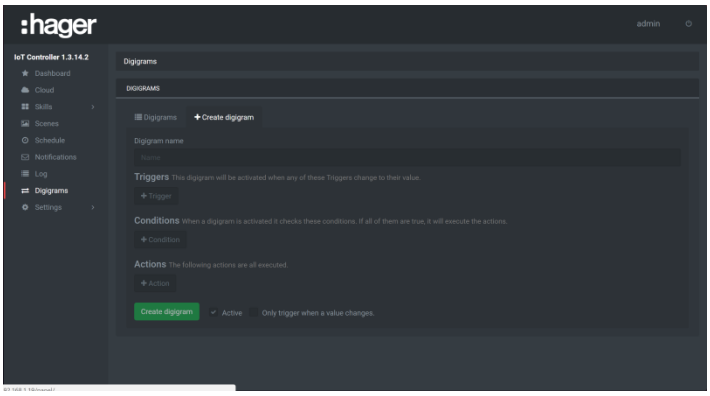
- Click **Save** to confirm

*It is possible to check the scene's functionality during configuration by clicking the **Test** button located next to the scene name.*

4.4 CREATE A DIGIGRAM TO PLAY THE SCENE

Once the scene has been created, define a command that will play this scene. In our example, it will be the music push button (4/1/2) that will trigger the scene.
To create this event, follow the example:

- Click the **Digigram** tab

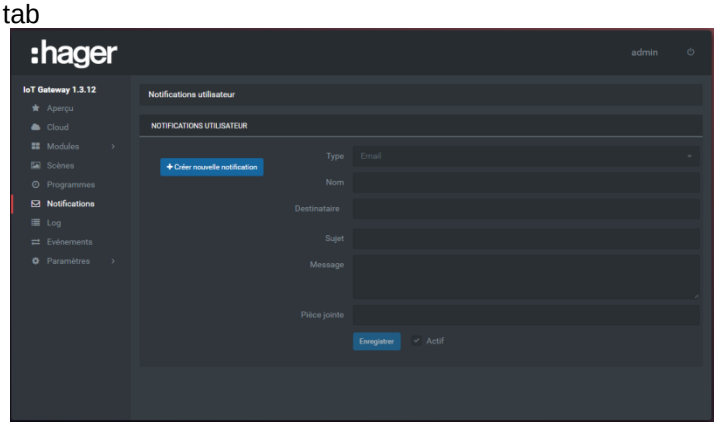


- Click **Create digigram**
- Enter the event name: **Play music**
- Click **Trigger**
  - Select the **4/1/2 Music scene** address in the **KNX** directory
  - Set the switch to ON
- Click **Action**
  - Select the **Play scene** command in the **System** directory
  - Select the **Music** scene
- Click **Create digigram** to confirm

4.5 CREATE A NOTIFICATION

To create an email alert that the alarm has been triggered, follow the example:

- Click the **Notification** tab

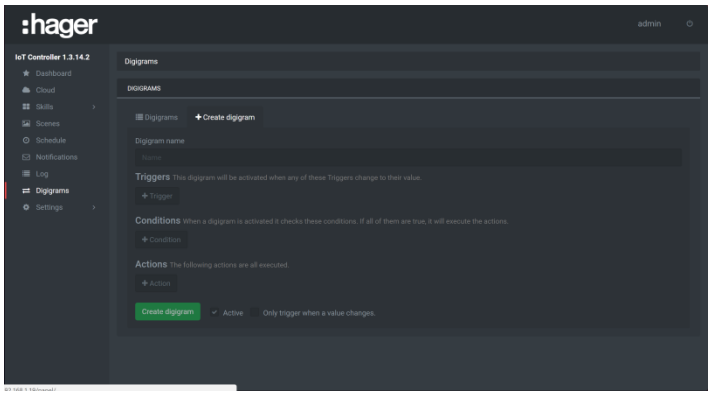


- Click **Create new notification**
- Select the type of notification: **Email** or **Push**
- Enter the notification name: **There is an alarm**
- Enter the recipient's email address or select the devices
- Enter the subject
- Enter the message
- Click **Save** to confirm

4.6 CREATE AN EVENT SIGNALLING NOTIFICATION

Once the notification has been created, define from which command the notification will be sent. In our example, triggering the alarm will be notified by the address from group 5/1/1.
To create this event, follow the example:

- Click the **Digigram** tab



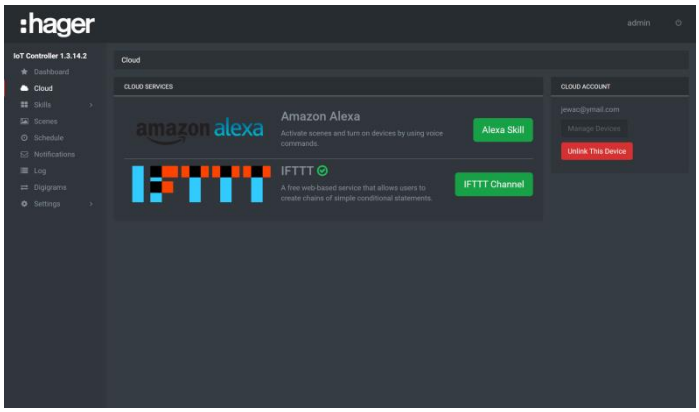
- Click **Create digigram**
- Enter the event name: **Alarm**
- Click **Trigger**
  - Select the **5/1/1 Alarm** address in the **KNX** directory
  - Set the switch to ON
- Click **Action**
  - Select the **Notification** command in the **System** directory
  - Select the **There is an alarm** notification

- Click **Create digigram** to confirm

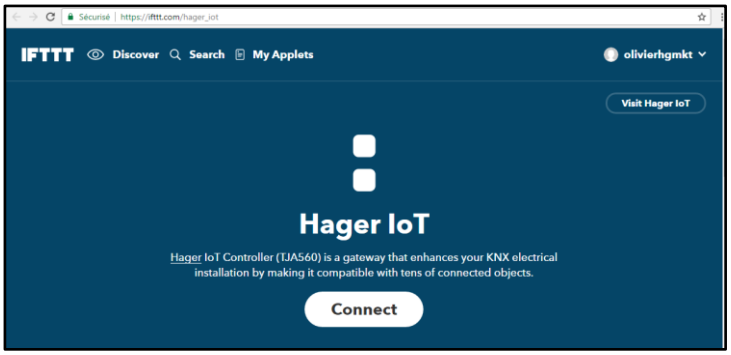
4.7 PLAY A SCENE USING GEOLOCALISATION

The objective is to play the **I'm back** scene when the user is within a radius of 500 m around his or her home. To do this, we will use the IFTTT service.

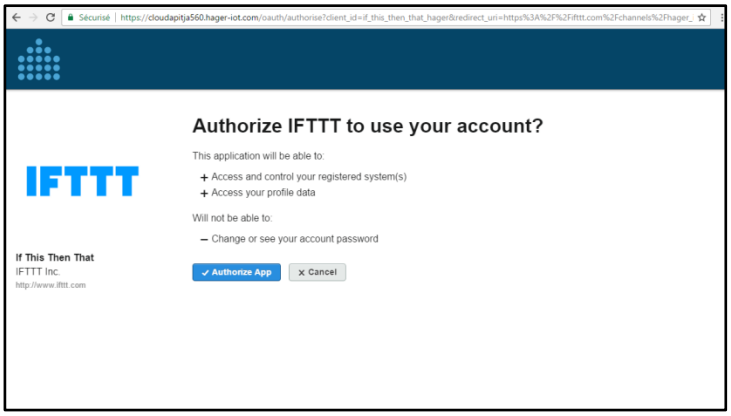
4.7.1 CONFIGURING THE IFTTT ACCOUNT



- Click the **Cloud** tab
- Click the **IFTTT Channel** to access the web page for the IFTTT service.
- Connect to your IFTTT account or create a new account



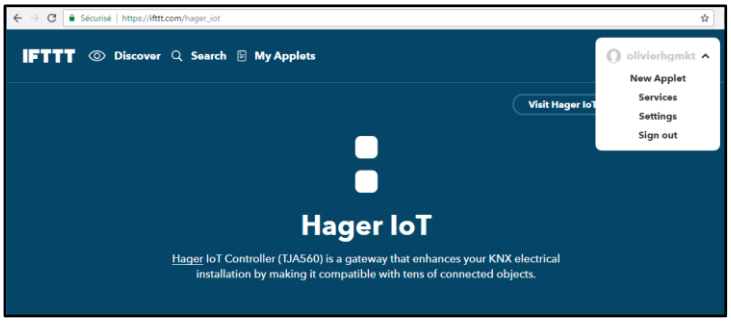
- Select the **Hager IoT** tab
- Click **Connect** to link the IoT Controller to IFTTT



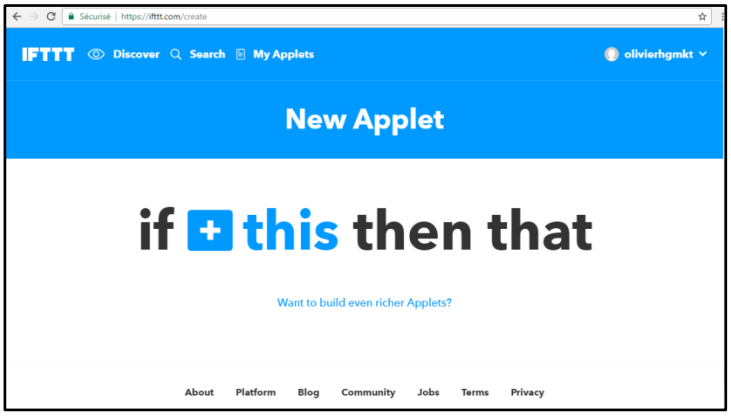
On the website

- Connect to your myHagar account
- Click **Authorize App** to confirm the IFTTT service
- Enter your myHagar login and password

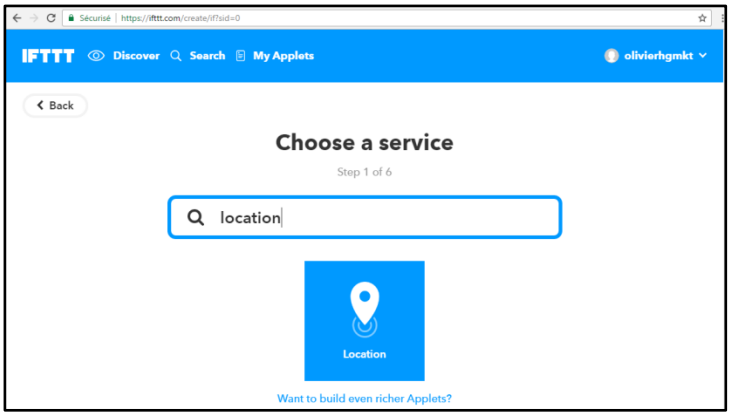
4.7.2 CREATE THE SCENARIO IN IFTTT



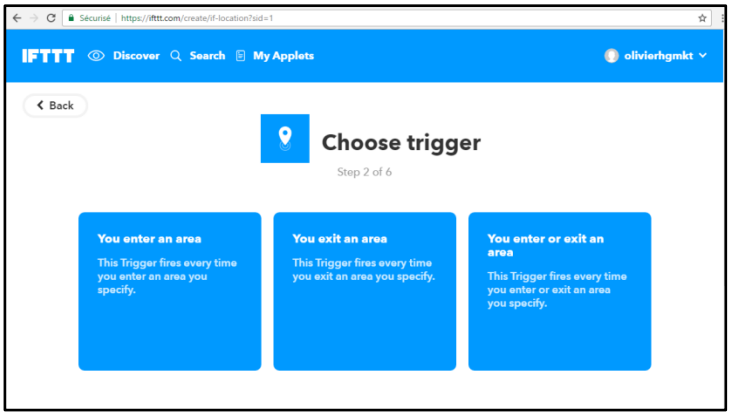
- Using your account, connect to the IFTTT service
- Click **New Applet** to create the new application



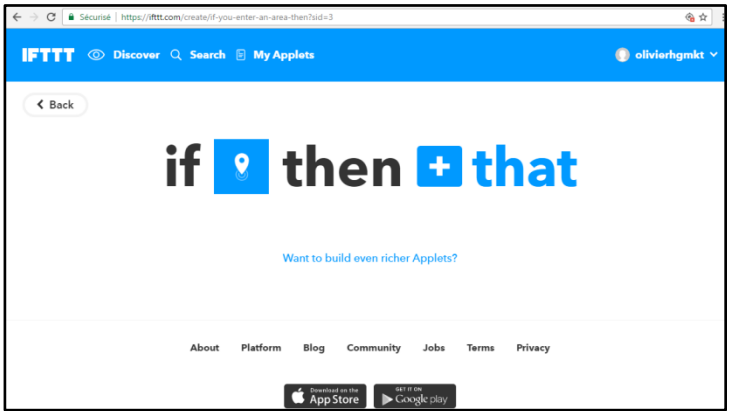
- Click **+this** to create the condition to play the scene



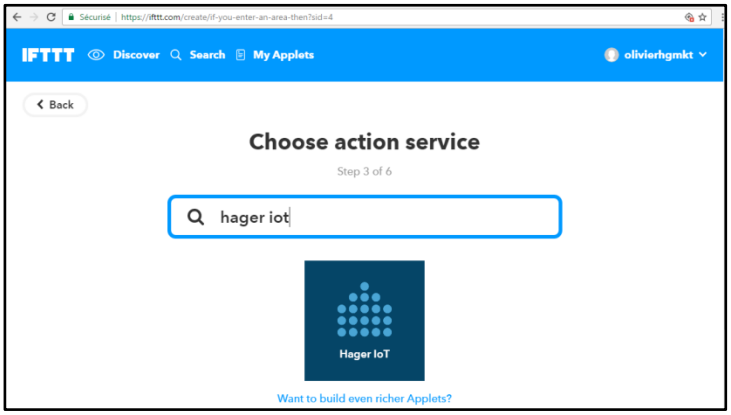
- Enter **Location** to find the application corresponding to the geolocalisation
- Click **Location**.



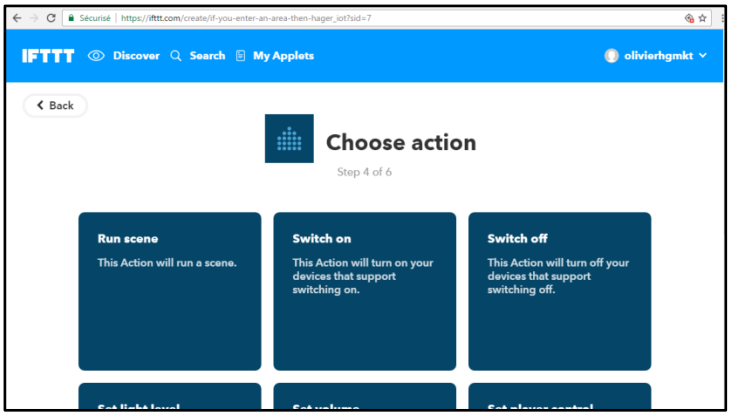
- Click **You enter an area** to define the condition
- Enter the domicile area and the action radius



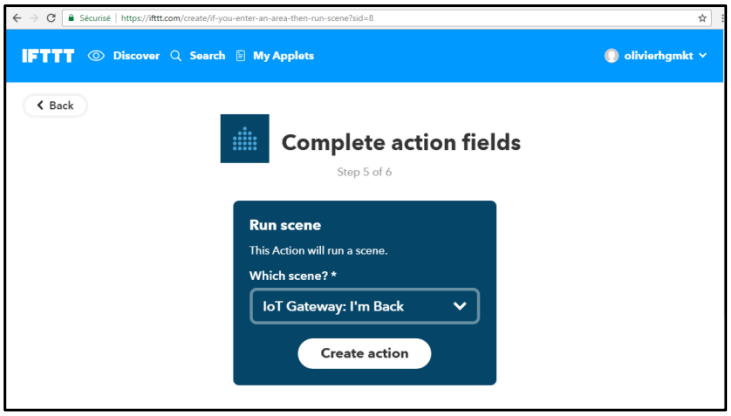
- Click **+that** to configure the scene to play



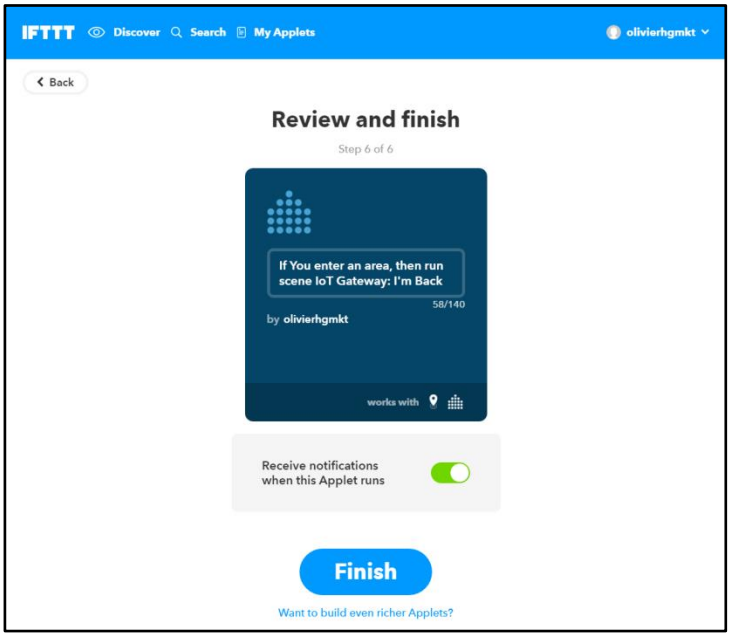
- Enter **Hager IoT** to find the IoT Controller application
- Click **Hager IoT**.



- Click **Run scene** to define the action to carry out



- Select the **I'm back** scene
- Click **Create action** to confirm

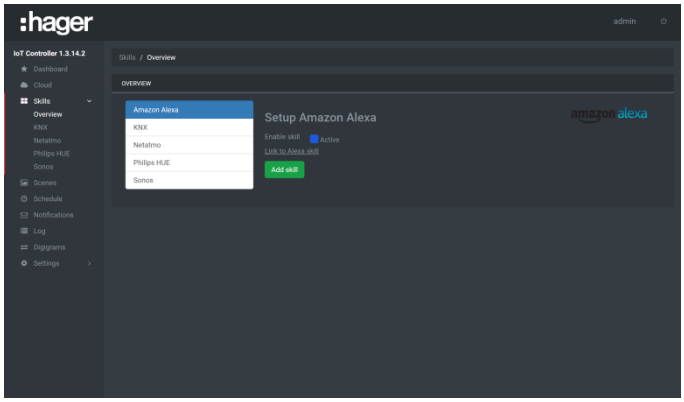


The IFTTT service confirms that the application has been created

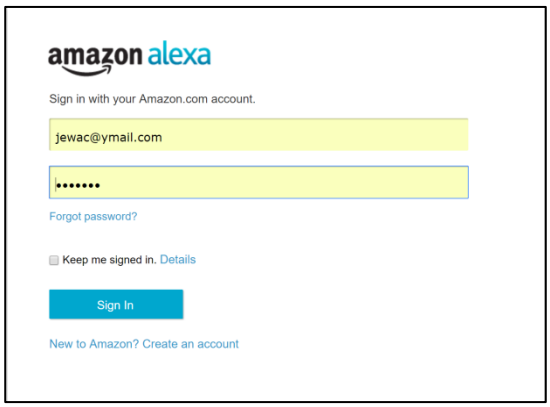
- Click **Finish** to confirm

4.8 PLAY A SCENE USING AMAZON ECHO

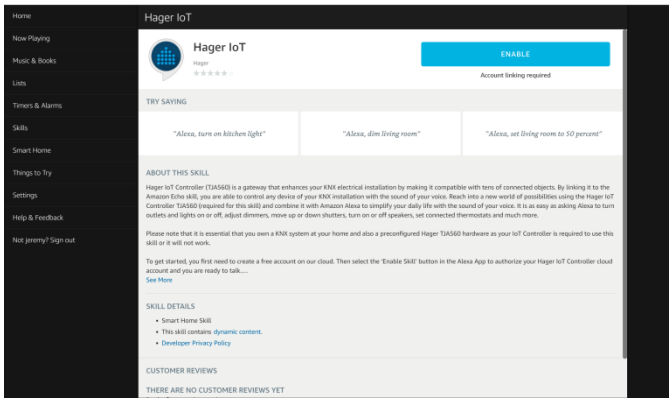
The objective is to play the **I'm back** scene when the user ask it to Alexa



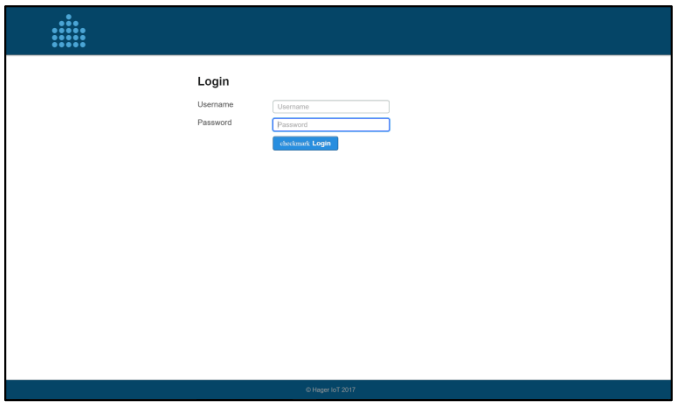
- Click the **Amazon Alexa** skill
- Click **Add skill** to confirm
- Click on **Link to Alexa Skill** to open the web page for your Amazon Alexa account



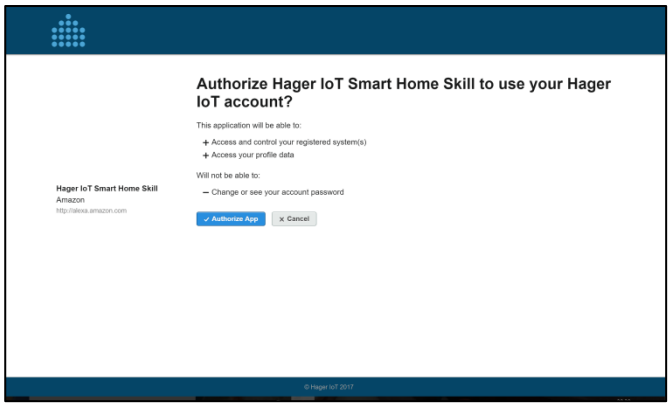
- Once the alexa webpage is opened, fill in your amazon credentials



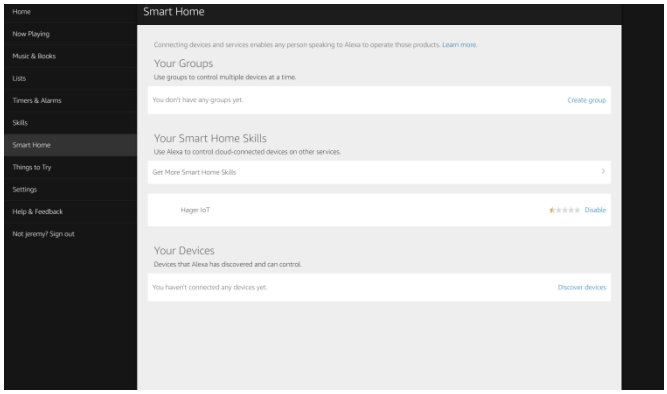
- Go to Alexa skills store and search for the **Hager IoT skill**
- Click on **Connect**



- Fill in your **myhager** credentials



- Click on **authorize app**



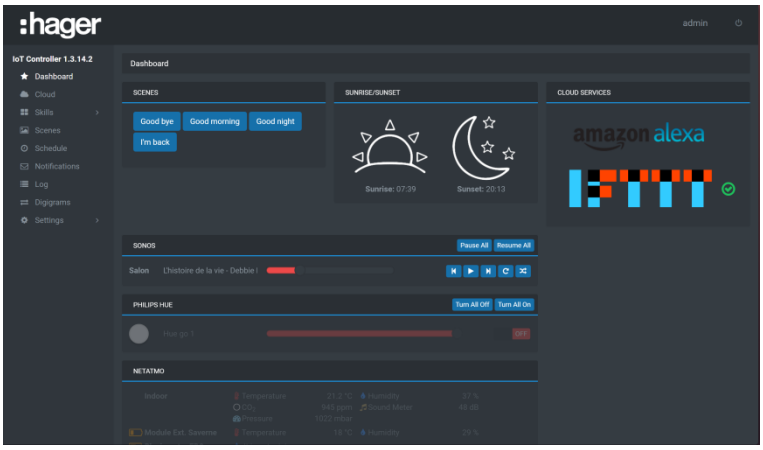
- From the smart home menu, click on **discover devices,** Alexa will then discover all your scenes and components.
- You can then control the scenes and components by using the alexa smart home commands

5. IOT CONTROLLER FUNCTIONALITIES

This chapter describes the various available menus and their functionalities.

5.1 DASHBOARD

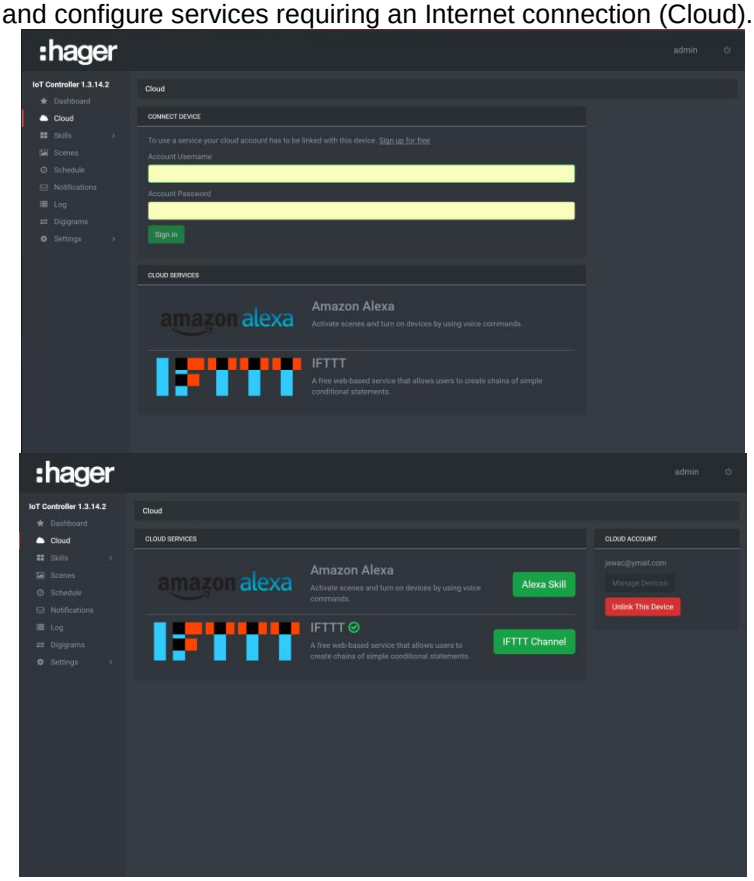
This part lets you view the presence and status of the various connected peripherals.



- **SCENES**: List of available scenes
- **SUNRISE/SUNSET**: Sunrise and sunset time depending on the position
- **SONOS**: List of quick commands:
  - Play/pause
  - Previous track
  - Next track
  - Repeat track
  - Shuffle
  - Pause All
  - Resume All
- **PHILIPS HUE**: List of quick commands:
  - ON/OFF
  - Light brightness
  - Colour selection
  - Turn all ON
  - Turn all OFF
- **NETATMO**: List of connected modules
  - Temperature
  - CO2
  - Atmospheric pressure
  - Sound meter
  - Humidity
  - Battery status (if available)
- **CLOUD SERVICES**: List of services available via the cloud
  - Amazon Alexa
  - IFTTT

5.2 CLOUD

This part lets you set up and configure services requiring an Internet connection (Cloud).



- Cloud services: lists the active services
  - Amazon Alexa: click **Alexa Skill** to open the web page for your Amazon Alexa account
  - IFTTT: click IFTTT Channel to open the web page for your IFTTT account

- Cloud Status: commands the Internet connection
  - ON: The IoT Controller is connected to the Internet (Cloud)
  - OFF: The IoT Controller is disconnected from the Internet (Cloud)

- Cloud Account: Lets you view the myHager account in use
  - Click **Manage Devices** to configure the myHager account
  - Click **Unlink this Device** to disconnect from the myHager account

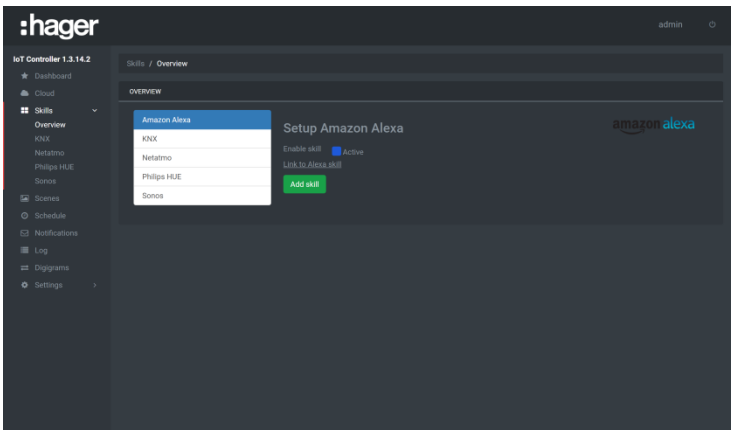
- Connect devices: Lets you link your myHager account to the IoT Controller to use the services.
  - Click **Sign In** to link the IoT Controller to an existing myHager account
  - Click **Sign up for free** to create a new myHager account and link the IoT Controller to this account

This section is only visible when the IoT Controller is not linked to the myHager account

5.3 SKILLS

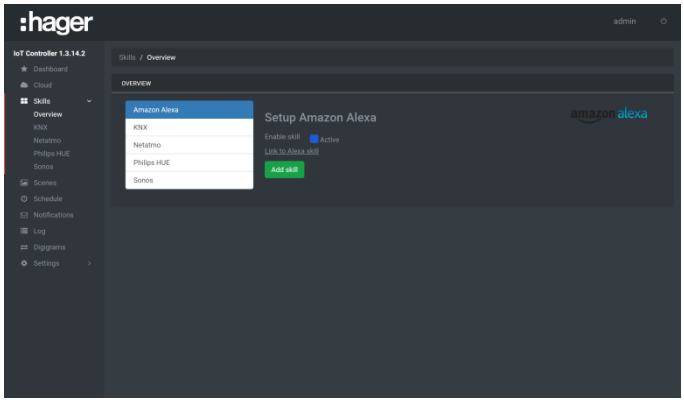
5.3.1 OVERVIEW

This section lets you view the list of modules that can be connected to the IoT Controller and configure them.



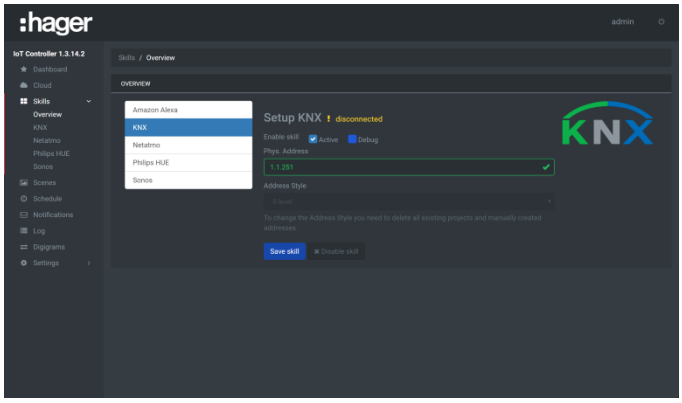
The available skills are:

- Amazon Alexa



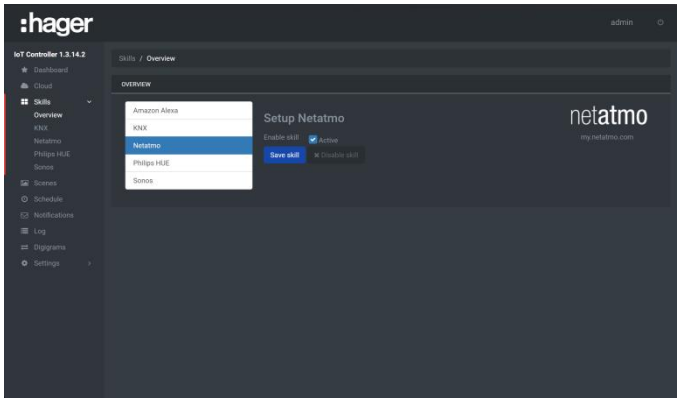
- Click the **Amazon Alexa** tab
- Click the Amazon Alexa module
- Click **Add skill** to confirm
- Click on **Link to Alexa Skill** to open the web page for your Amazon Alexa account

- KNX



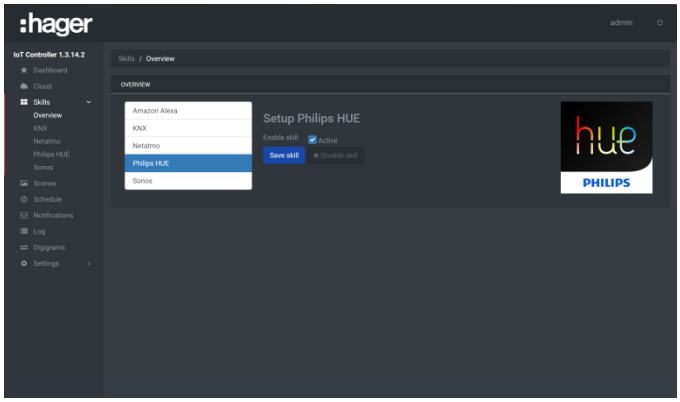
- Click the **KNX** tab
- Activate the KNX skill
- Enter the KNX module physical address (2)
- Select the group address style: Two or three levels (3)
- Click **Add skill** to confirm

- Netatmo



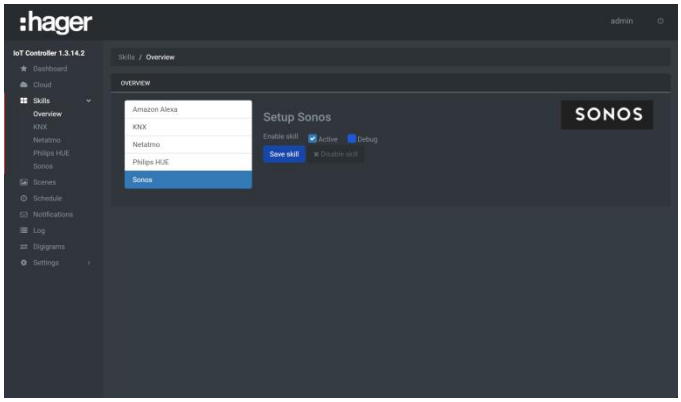
- Click the **Netatmo** tab
- Activate the Netatmo skill
- Click **Add skill** to confirm

- Philips HUE



- Click the **Philips HUE** tab
- Activate the Philips HUE skill
- Click **Add skill** to confirm

- Sonos



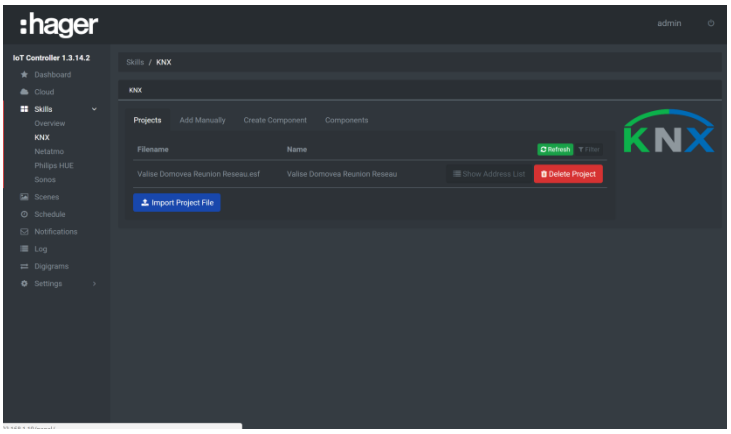
- Click the **Sonos** tab
- Activate the Sonos skill
- Click **Add skill** to confirm

5.3.2 KNX LINK

In this section, you can configure the project group addresses. This configuration can be carried out in 2 ways:

- By importing a KNX project: From a KNX project saved file, you can import group addresses with their names.
- By manual entry: Each group address is entered manually.

Furthermore, it is also possible to configure KNX components for use with IFTTT and Alexa.
These components represent an abstraction of several group addresses. For example, the light component includes an on/off command object and a return to initial state. Creating a component lets you simplify the other configuration steps.



- KNX projects

- Click the **Projects** tab
- Click **Import project file**
- Select the project file to import
- Click **Display address list** to view the addresses of the imported groups
- Click **Delete project** to delete group addresses related to this project

- *Compatible file formats for importation are: *.knxproj, *.esf, *.ezt*
- *It is possible to import several projects on one IoT Controller.*

- Add manually

- Click the **Add manually** tab
- Enter the address of the group to create
- Enter the name of the group address
- Select the group address format
- Select **Read on init** to read the value of the group address when starting the IoT Controller
- Click **Create new address** to confirm

The table below indicates the various possible formats:

DPT1.x	1 bit
DPT1.001	Switch
DPT1.007	Step
DTT1.008	Up/down
DPT2.x	2 bit
DPT3.x	4 bit
DPT3.007	Dimming control
DPT3.008	Blind control
DPT4.001	Character (ASCII)
DPT5.x	1 byte
DPT5.001	Percentage (0...100%)
DPT5.003	Angle (degree)

DPT5.004	Percentage (0...255)
DPT6.x	1 byte
DPT7.x	2 byte
DPT9.x	2 byte float
DPT9.001	Temperature (°C)
DPT9.004	Lux (lux)
DPT9.005	Wind speed (m/s)
DPT9.006	Pressure (Pa)
DPT9.007	Humidity (%)
DPT9.008	Air quality (ppm)
DPT10.001	Time
DPT11.001	Date

DPT12.001	4 byte
DPT13.x	4 byte
DPT14.x	4 byte float
DPT16.000	4 byte ASCII
DPT17.001	Scene number
DPT18.001	Scene control
DPT20.x	1 byte
DPT20.102	HVAC mode
DPT232.600	RGB 3 byte

The group address format can always be modified, even after creation

- Create a component

- Click the **Create component** tab
- Enter the name of the component to create
- Select the component classification
- Select the type of component

Different actuators and triggers are displayed depending on the classification and type selected.

- Click **Add** to open the list of compatible group addresses
- Select the group address by clicking **Add**
- Continue in the same way for the other group addresses

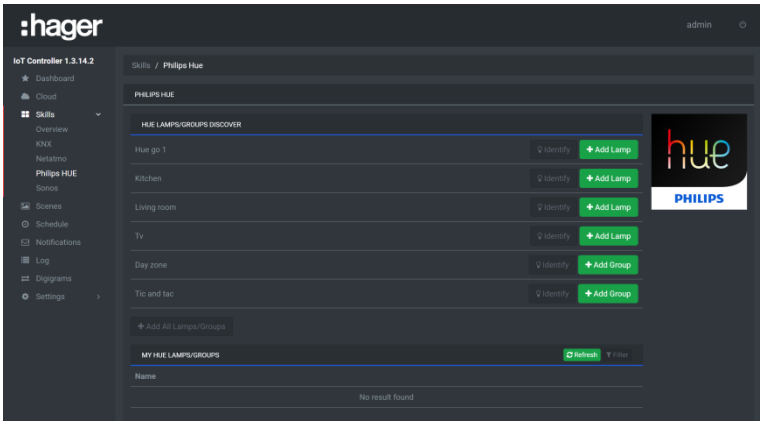
- Component

Once a component has been created, it is possible to view its group addresses or delete it.

- Click the **Component** tab
- Click **Group addresses** to display the component group addresses
- Click **Delete** to delete the component

5.3.3 PHILIPS HUE

This section pairs and configures the various Philips HUE lamps.

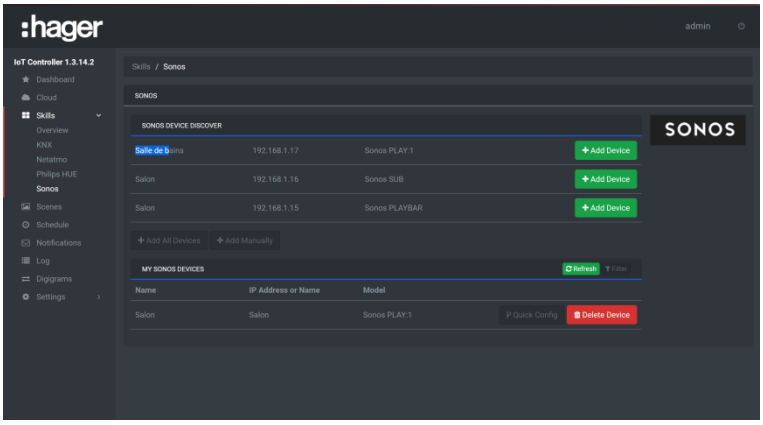


- Click **Pair bridge** to pair the Philips HUE base and follow the instructions displayed on the screen

- Click **Add lamp** to add the lamps of your choice in the configuration group
- Click **Quick Config** to create links with the group addresses
    - Click **Select** for the desired command
    - Select the group address by clicking **Add**
    - Click **Save** to confirm
- Click **Identify** to physically find the concerned lamp
- Click **Delete Lamp** to remove the lamp from the project

5.3.4 SONOS

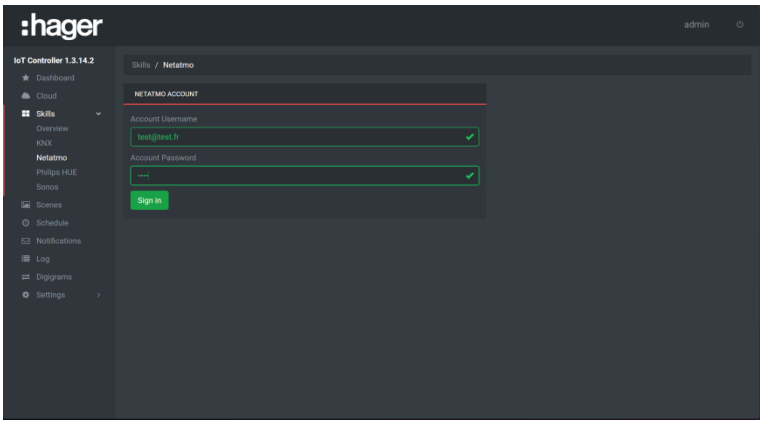
This section configures the various Sonos peripherals.



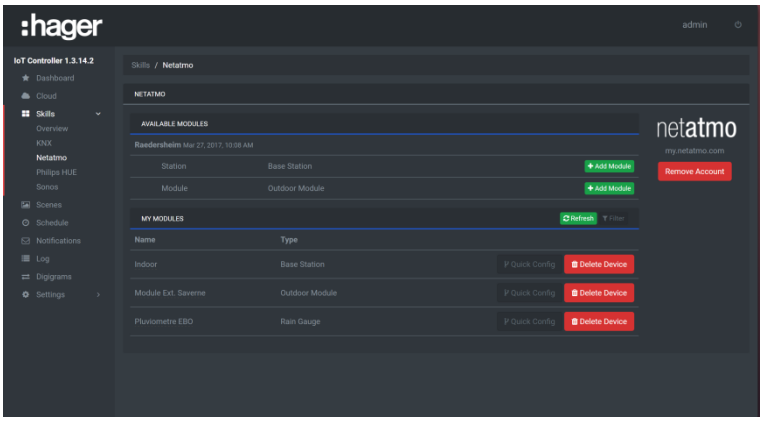
- Click **Add Device** to add the peripherals of your choice in the configuration group
  Click **Quick Config** to create links with the group addresses
    - Click **Select** for the desired command
    - Select the group address by clicking **Add**
    - Click **Save** to confirm
- Click **Delete Device** to remove the lamp from the group

5.3.5 NETATMO WEATHER STATION

This section sets up the various modules configured in your Netatmo account.



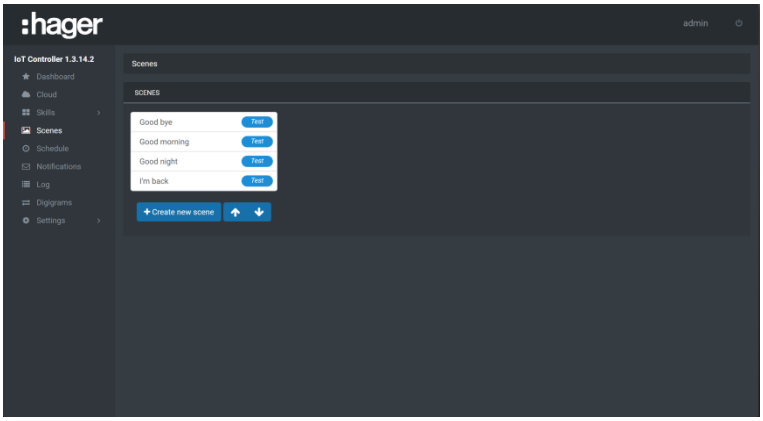
- Enter the Netatmo account username and password



- Click **Add Module** to add the items of your choice in the configuration group
- Click **Quick Config** to create links with the group addresses
    - Click **Select** for the desired command
    - Select the group address by clicking **Add**
    - Click **Save** to confirm
- Click **Delete Device** to remove the module from the group

5.4 SCENES

This section lets you set up and configure the scenes.



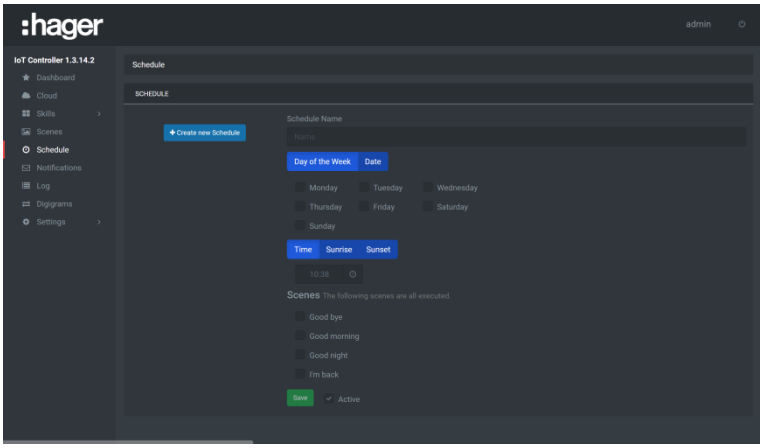
- Click **Create new scene**
- Enter the name of the scene to create
- Click **Action** and select the command to carry out from the list of peripherals
- Click **Action** to add an additional command
- Click **Save** to confirm

*It is possible to check the scene's functionality during configuration by clicking the **Test** button located next to the scene name.*

Once the scene has been created, define a command that will play this scene.

5.5 SCHEDULES

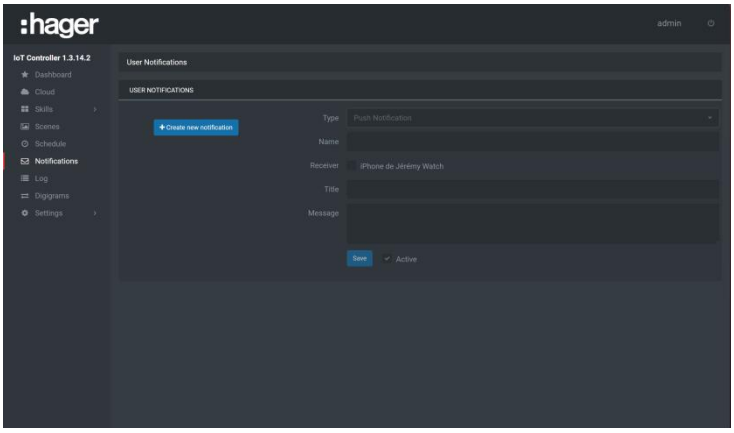
This section lets you programme scene triggering depending on a schedule.



- Click **Create new Schedule**
- Enter the name of the schedule to create
- Select the days of the week when the programme must be run
- Select the time when the programme must be run (a specific time or depending on sunrise or sunset)
- Select the scene to be played (you may select several scenes at once)
- Click **Save** to confirm

5.6 NOTIFICATIONS

This section lets you set up and configure notifications to send.



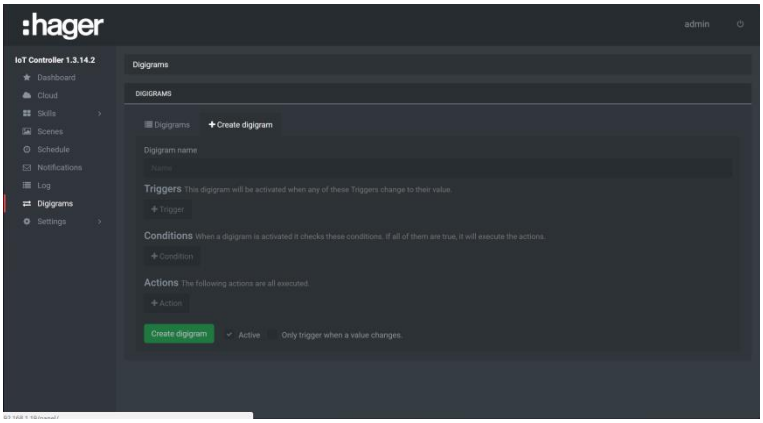
- Click **Create new notification**
- Select the type of notification:
  - **Email** to send a message via email
  - **Push notification** (on iOS and Android)
- Enter the notification name
- Enter the recipient's email address or select the devices
- Enter the subject
- Enter the message
- Click **Save** to confirm

Once the notification has been created, define a command that will send this notification

5.7 DIGIGRAMS

This part lets you set up and configure how digigrams run depending on the conditions.

5.7.1 CREATE A DIGIGRAM

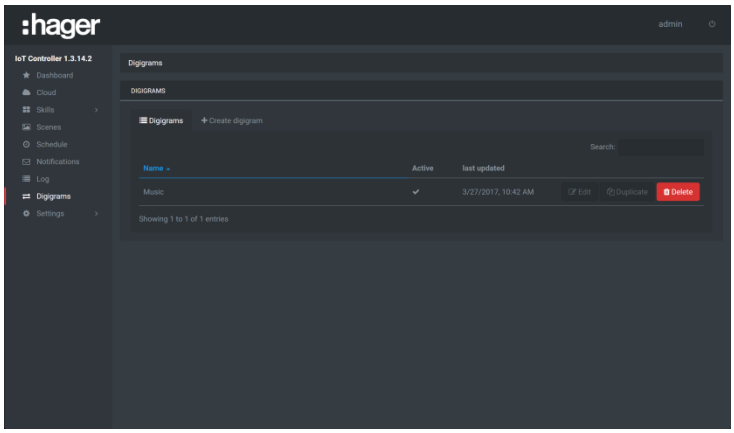


- Click **Create digigram**
- Enter the name of the event to create
- Click **Triggers** and select the triggering event from the list of peripherals.
- Click **Conditions** and select the conditions required for the event from the list of peripherals.
- Click **Action** and select the command to carry out from the list of peripherals
- Click **Create digigram** to confirm

It is possible to configure several triggers, conditions, and actions.

- *Triggers: the event occurs when one of the trigger values changes*
- *Conditions: the event occurs only if all of the conditions are true.*
- *Actions: All actions will be executed one after the other.*

5.7.2 LIST OF DIGIGRAMS



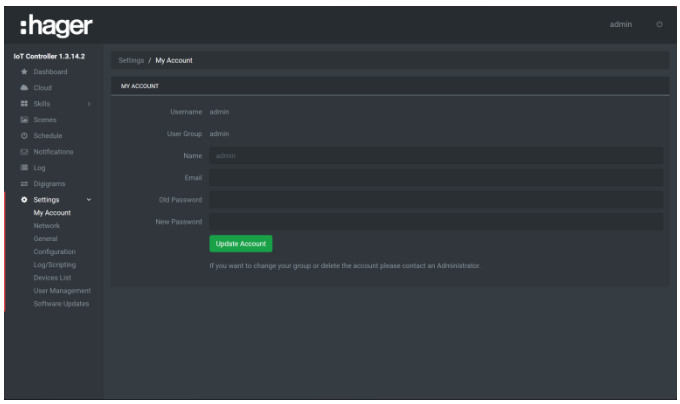
After creation, a list of all digigrams is displayed.

- Click **Edit** to view the event configuration and potentially modify it.
- Click **Duplicate** to create a copy of the event.
- Click **Delete** to delete the event.

5.8 SETTINGS

5.8.1 MY ACCOUNT

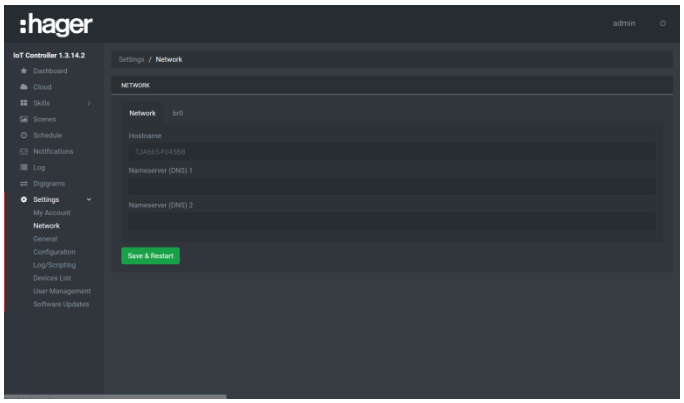
This section lets you fill out the information concerning the administrator account.



- Complete the administrator account profile.
- Click **Update Account** after entering the information.

5.8.2 NETWORK

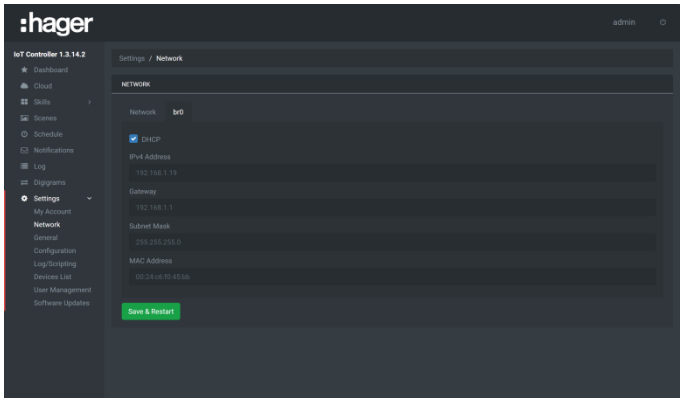
This section configures the network settings.



- Click the **Network** tab to view:
  - The host name
  - The name or IP address of the DNS 1 and 2 servers.

Modification is only possible when the DHCP functionality is inactive.

- Click the **Hostname** field and enter the new name.
- Click the **Nameserver (DNS) 1** or **2** field and enter the new name or the new IP address.
- Click **Save and reboot** to record the modifications.



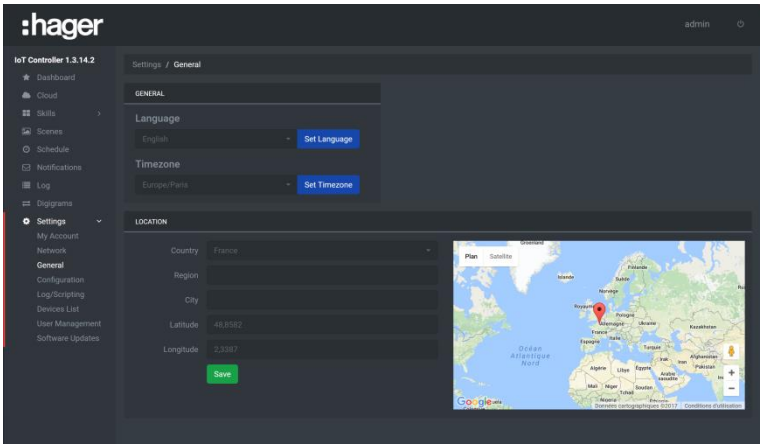
- Click the **br0** tab to view:
  - Activation of the DHCP functionality
  - The product IP address
  - The gateway IP address
  - The sub-network mask
  - The MAC address

Modification is only possible when the DHCP functionality is inactive (excluding MAC address).

- Click the **DHCP** field to enable or disable the functionality.
- Click the **IPv4 Address** field and the new IP address.
- Click the **Gateway** field and enter the new IP address
- Click the **Subnet Mask** field and enter the new mask
- Click **Save and reboot** to record the modifications.

5.8.3 GENERAL

This section lets you define the menu language and geographically localise the product.



- Language:
  - Click ▼ to select your language from the scrolling list.
  - Click **Set language** to record the modifications.

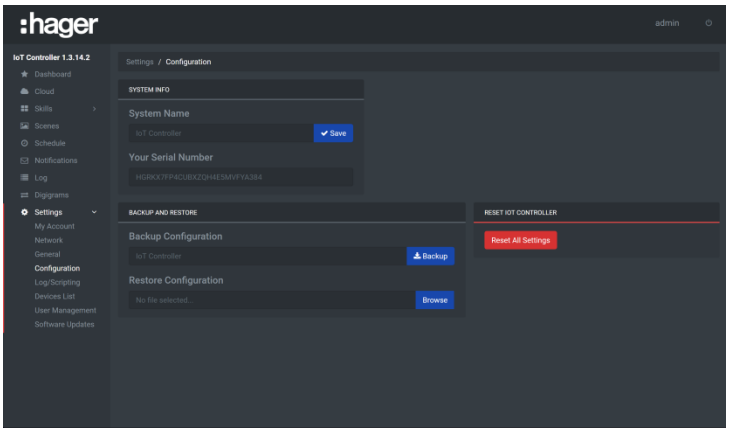
- Time zone:
  - Click ▼ to select your time zone from the scrolling list.
  - Click **Set Timezone** to record the modifications.

- Localisation:
  - In **Country**, click ▼ to select the country from the scrolling list.
  - Click the **Region** field and enter the region.
  - Click the **City** field and enter the city.
  - Click the **Latitude** field and enter the latitude.
  - Click the **Longitude** field and enter the longitude.
  - Click **Save** to record the modifications.

Sunset and sunrise times are indicated depending on the latitude and longitude entered.

5.8.4 CONFIGURATION

This section lets you reinitialise, backup and restore the system configuration.



- System information: This section lets you view the system name and serial number
  - Click the **System name** field and enter the new name.
  - Click **Save** to record the modifications.

*The default system name is **IoT Controller**. The serial number cannot be modified.*

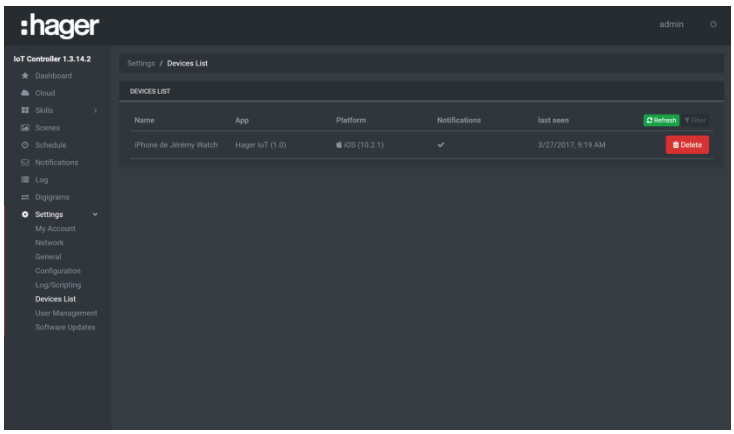
- Save and restore: This section lets you save and restore the system configuration
  - Click the **Backup configuration** field and enter the new name of the backup, if necessary (The default name will be **IoT Controller**).
  - Click **Save** to launch a system backup. At the end of the backup, the configuration will be stored in a .bkp file.

  - In the **Restore Configuration** field, click **Browse** to select the backup file (*.bkp).
  - Click **Restore** to launch a system restore.

- Reinitialise the IoT Controller:
  - Click **Reset all settings** to reload the system factory settings.

5.8.5 DEVICES

This section shows the platforms (telephone, tablet, smart watch) connected to the system in order to send them notifications.

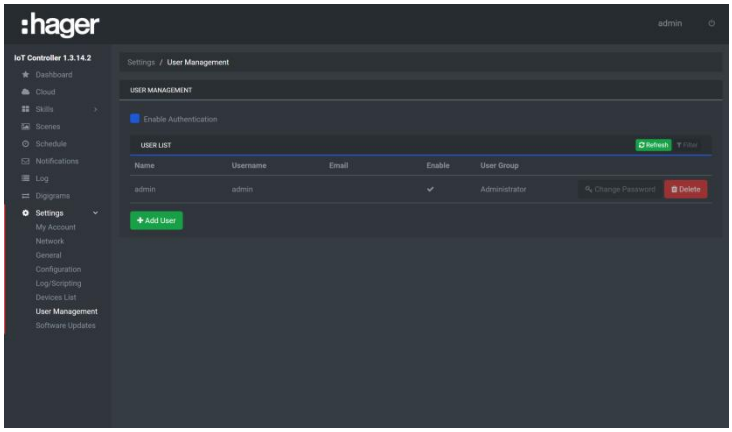


- Devices:
  - Click the **Refresh** field to reinitialise the page.
  - Click **Delete** to delete the peripheral from the list.
  - Click **Filter** to search for a specific peripheral or a group of peripherals.
    - Fill out the fields provided for the search.

5.8.6 ACCOUNT MANAGEMENT

This section lets you create and configure various accounts for access to the IoT Controller.
The IoT Controller has two profiles for the configuration:

- An **Installer** profile with administrator privileges
- A **User** profile with restricted privileges



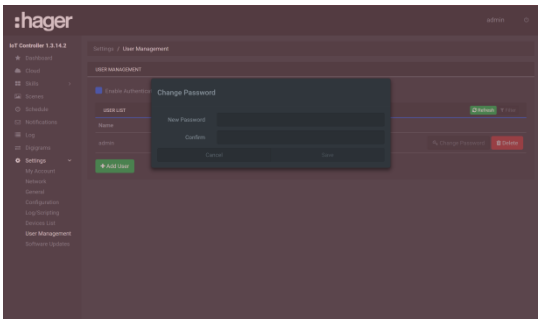
The tab lets you:

- Activate access protection using a password
- View the list of users

- Click **Activate authentication** to enable or disable password authentication to access the various views
- Click the **Refresh** field to reinitialise the page.
- Click **Filter** to search for a specific peripheral or a group of peripherals.
  - Fill out the fields provided for the search.

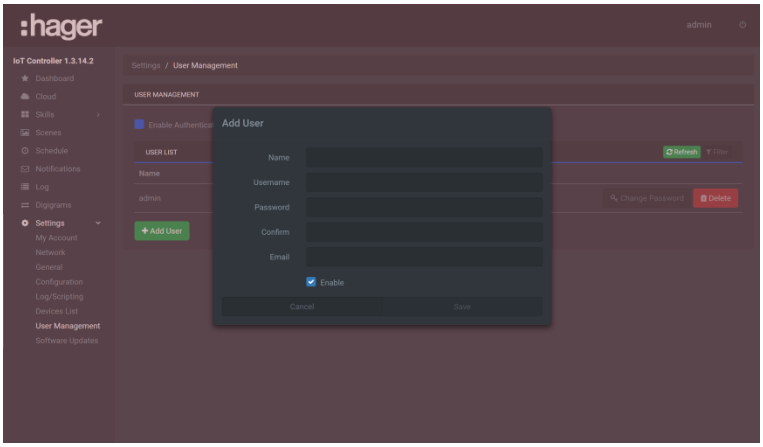
<u>Profile creation and management</u>

For the installer profile: only the password may be modified



- Click **Change Password**
- Enter the new password
- Enter the new password to confirm
- Click **Save** to confirm

For the user profile:



- Click **Add User**
- Enter the fields provided for this.
- Click **Activate** to make the account active
- Click **Save** to confirm

Click to delete a user.

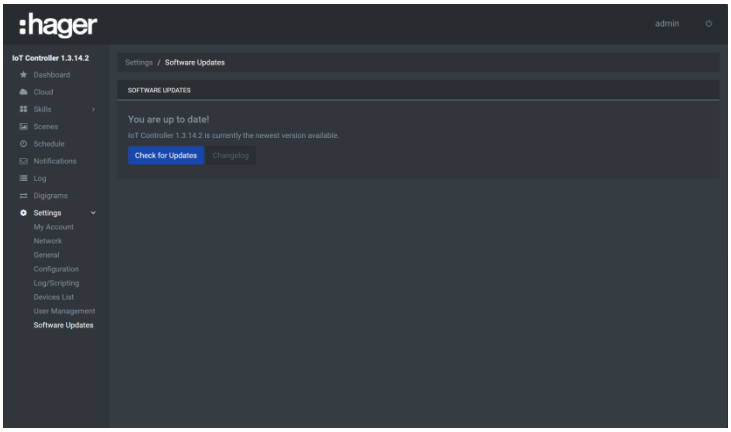
If the installer or user loses his or her password, it can be reset using the following procedure:

- Place the online/offline switch on the front of the device into offline mode
- Open the web browser tool to connect to the system

The user is automatically redirected to a page where the password can be changed.

5.8.7 UPDATE

This part lets you check if the system software is up-to-date.



- Click **Check for Updates**

The system checks the application software version and advises if an update is necessary. If this is not the case, it signals that the system is up-to-date.

- Click **Changelog** to view the list of software modifications depending on the version.

When an update is available, a notification is displayed on the screen allowing the user to launch the update process by clicking the **Update** button.

5.9 LIMITATIONS

General

- KNX: 5400 group addresses
- Connected devices: 50 devices including:
  - Hue: 50 lights
  - Sonos: 32 loudspeakers
  - Netatmo: 1 account
  - Alexa: 1 account
  - IFTTT: 1 account
  - Hager Smart Thermostat - Tado (when available): 1 account

Automatisms (digigrams, schedules and scenes)

- Digigrams: 100
- Scenes: 50
- Schedules: 50
- Triggers per digigram: 15
- Conditions per digigram: 10
- Actions per digigram/scene: 10

5.10 LIST OF DATAPOINTS

Skill	**Feature**	**Format**	**DPT IoT**	**DPT ETS**
Phillips Hue	On / Off	1 bit	1.001 Switch	Switch
	Increase / Decrease	4 bit	3.007 Dimming control	Dimming
	Color loop	1 bit	1.001 Switch	Switch
	Luminosity	1 byte	5.001 Percentage	Percentage
Sonos	Play / Pause	1 bit	1.001 Switch	Switch
	Volume Increase/Decrease	4 bit	3.x	Dimming
	Volume percentage	1 byte	5.001 Percentage	Percentage
	Title	14 byte	16.000 ASCII	ASCII
	Volume status	1 byte	5.001 Percentage	Percentage
	Next playlist	1 bit	1.001 Switch	Switch
	Previous playlist	1 bit	1.001 Switch	Switch
	Next title	1 bit	1.001 Switch	Switch
	Previous title	1 bit	1.001 Switch	Switch
	Play favorite or playlist	1 bit	1.001 Switch	Switch
Netatmo	Temperature	2 byte	9.001 Temperature	Temperature (°C)
	Wind speed	2 byte	9.005 Wind Speed (m/s)	Wind speed (m/s)
	Pressure	2 byte	9.006 Pressure (PA)	Pressure (Pa)
	Humidity	2 byte	9.007 Humidity (%)	Humidity (%)
	Air quality	2 byte	9.008 Air quality (ppm)	Air quality (ppm)
	Rain	1 bit	1.001 Switch	Switch
	Battery level	1 byte	5.001 Percentage	Percentage
	Noise level	1 byte	5.001 Percentage	Percentage

5.11 LIST OF ALEXA VOCAL COMMANDS

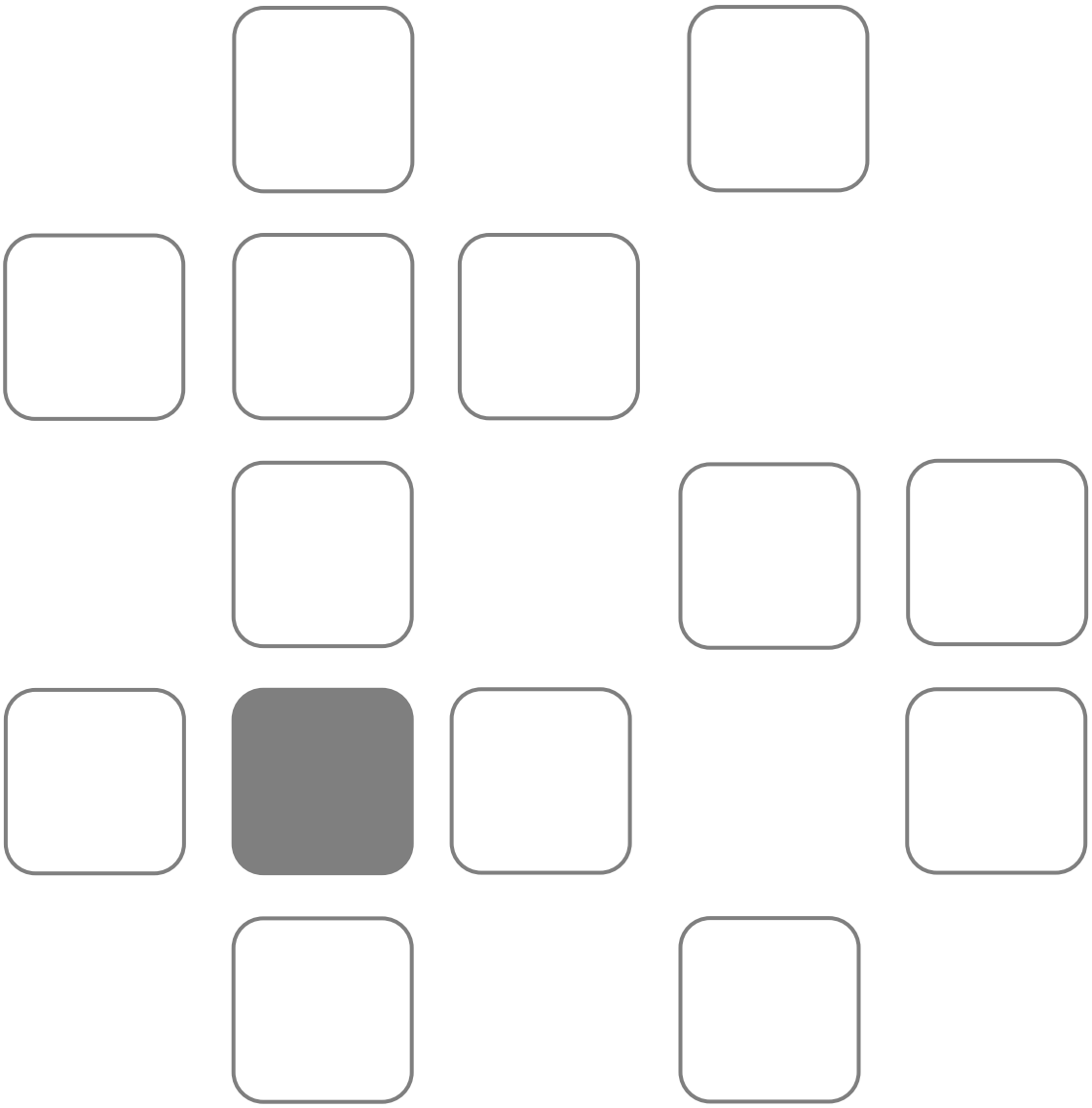
Scene
- Activate a scene: "Alexa, turn on Movie Time" or "Alexa, turn on Bedtime."

Component/light
- Turn lights on or off: "Alexa, turn on the lights" or "Alexa, turn off the living room lights."
- Dim the lights: "Alexa, dim the lights to 50 percent."

Component/thermostat
- Adjust temperature: "Alexa, raise the temperature 1 degree."
- Set temperature: "Alexa, set the temperature to 23."

All others components
- Not compatible (while waiting for an update from Amazon ”smart home skills” update)

IFTTT
- Use IFTTT applets: "Alexa, trigger [IFTTT applet]."



Hager Controls S.A.S., 33 Rue Saint-Nicolas, B.P. 10140, 67703 SAVERNE CEDEX, France – www.hager.fr 01/2018 – 6LE005108C