



USER MANUAL

— SmartehCloud Dashboard 1.0.20

Version 2



Written by SMARTEH d.o.o.
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User manual

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SmarteCloud Dashboard 1.0.20

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1 ABOUT THIS DOCUMENT

This document describes in detail how to use and navigate through SmartehCloud Dashboard.

1.1 Who Should Read This Document

This document is the main source of information for users of SmartehCloud Dashboard 1.0.20. You should read this document if you are new to SmartehCloud Dashboard 1.0.20.

1.2 Content of this document

This document consists of the following chapters:

- **Chapter 1, “About this Document”:** Introduces the purpose and scope of this document, along with an overview of the terminology used.
- **Chapter 2, “Terminology”:** Explains some basic words and concepts used in this document.
- **Chapter 3, “Description of SmartehCloud Dashboard 1.0.20”:** Provides an overview of the SmartehCloud Dashboard, offering essential knowledge for new users, along with practical examples.
- **Chapter 4, “General Usage of SmartehCloud Dashboard 1.0.20”:** Covers key information on how to use the SmartehCloud Dashboard 1.0.20, including important user interface details.
- **Chapter 5, “SmartehCloud Dashboard 1.0.20 Tutorial”:** Guides users through the application’s pages and content, offering a comprehensive tutorial on how to navigate and use the app effectively. This chapter also describes the functions on each page, equipping users to utilize most of the application’s features.
- **Appendix A, “Compatibility”:** Details the system requirements needed to run the application.
- **Appendix B, “Error Reporting”:** Provides instructions for reporting errors and encourages users to share their ideas or suggestions for future improvements.



APPENDIX C - LICENSE

- *Appendix C, “License”:* Contains the official software license for this product.
- *Appendix D, “Changes”:* Lists all the changes that were added to newer versions of the SmartehCloud services.

2 TERMINOLOGY

- **Integrator**
A company, project, or building owner that manages users and devices in the system.
- **Roles/Privileges**
A system of permissions defining what actions users can perform based on their assigned role.
- **WAMP (Web Application Messaging Protocol)**
A communication protocol used for WebSocket-based messaging, often used to interact with devices in real-time.
- **MQTT (Message Queuing Telemetry Transport)**
A lightweight messaging protocol used to exchange data between devices over the Internet.
- **WebDAV (Web Distributed Authoring and Versioning)**
A protocol used for uploading, downloading, and managing files on a web server.
- **Device ID**
A unique identifier assigned to each device or user within the cloud system.
- **Cloud Services**
Services provided through the cloud that enable the management and communication of devices, user accounts, and data.
- **WebSocket**
A communication protocol that enables full-duplex communication channels over a single TCP connection, often used in real-time web applications.
- **SSO (Single Sign-On)**
A user authentication process that allows a user to access multiple applications with a single set of login credentials.
- **Keycloak**
An open-source identity and access management solution for modern applications and services, including SSO and user federation.
- **Device Certificates**
Digital certificates used to verify the identity of devices and secure communication with the cloud.
- **Revocation**
The process of invalidating or removing a user's or device's certificate or access to the system.
- **Status Pop-ups**
Notifications that inform the user about the current status of an action or operation (success, failure, etc.).
- **Notification System**
A system that alerts users of important events, changes, or actions, often presented as pop-up messages or notifications.
- **Password Strength Meter**
A tool that indicates the strength of a password as it's being typed, helping users create secure passwords.
- **Password Confirmation**
A field in a form where users must re-enter their password to confirm that both entries match.
- **Popup Messages**
Messages displayed in a pop-up window, typically to inform the user of an action that needs confirmation (e.g., delete, update).
- **Notification Feedback**
Messages displayed to inform the user of the result of an action, such as whether it was successful or not.





- **Mobile-Friendly**
A design feature that ensures the application is easy to use and navigate on mobile devices.
- **Responsive Design**
A design approach that makes web applications adapt to different screen sizes, such as mobile phones, tablets, and desktop computers.
- **Dropdown**
A UI element that allows users to select an option from a list that expands when clicked or tapped.
- **Radio Button**
A UI element that allows users to select one option from a predefined set, where selecting one option automatically deselects the others.

3 DESCRIPTION OF SMARTEHCLOUD DASHBOARD

3.1 About SmartehCloud Dashboard

The SmartehCloud Dashboard is designed to manage users, projects, and Smarteh devices through a single web application. It is accessible at <https://cloud.smarteh.com/dashboard/en/welcome>.

Example: An integrator (company) can create users, assign them permissions to work on a specific project, and connect different devices to the project. All of this can be done with the SmartehCloud Dashboard.



Figure 1: SmartehCloud Dashboard Welcome Page

The user interface of this application was developed with simplicity as the top priority. It features a top navigation bar, where all additional information about the application can be accessed. There is also a button for user actions, such as selecting the integrator, choosing a project, setting up your user account, and logging out of the application.

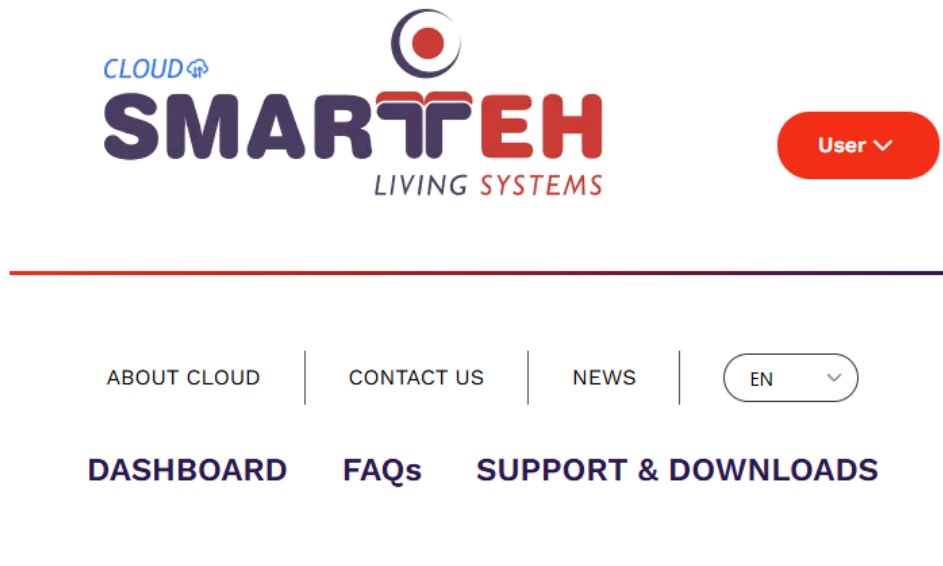


Figure 2: SmartehCloud Dashboard top navigation bar

The middle section contains icons that direct users to the various services offered by our cloud application, which will be explained in detail in the following paragraphs.

The bottom section, or footer, includes company information and useful links that take users to our LinkedIn and YouTube profiles, as well as our website.

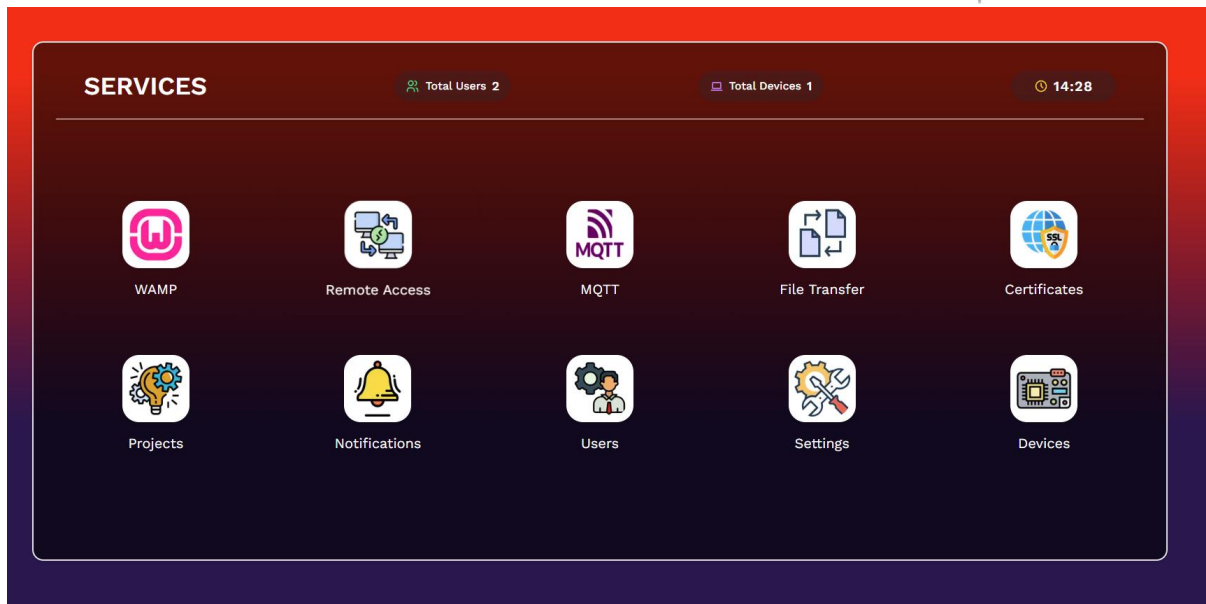


Figure 3: Services section of SmartehCloud Dashboard

The user interface of the tool is easy to navigate and offers quick, intuitive actions. It provides feedback to the user when necessary. The tool is fully responsive and mobile-friendly, allowing users to access it on any modern browser.

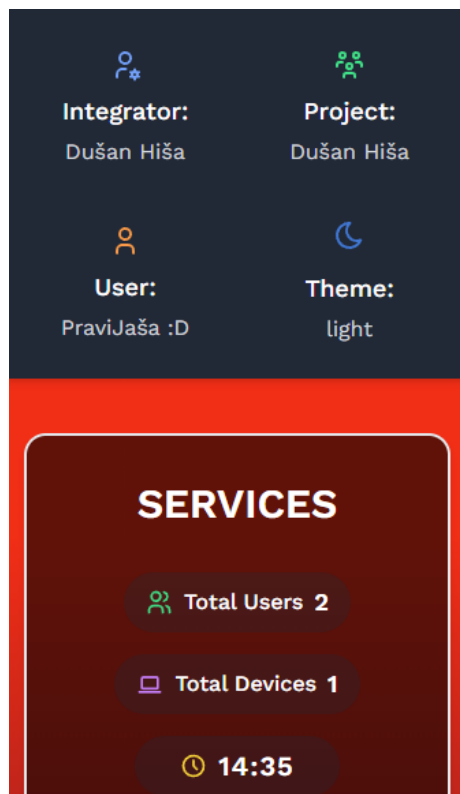


Figure 4: SmartehCloud Dashboard Services section in mobile view

4 GENERAL SMARTEHCLOUD DASHBOARD'S USAGE

SmartehCloud Dashboard is designed as a central hub for connecting integrators (companies or building/project owners), projects, users, and Smarteh devices within a single application. It includes several services that allow users, depending on their role, to manage projects, devices, and other users.

The primary protocol-based and device-dependent services currently include:

- WAMP Service
- MQTT Service
- File Transfer Service
- Remote Access Service

These services enable monitoring and communication with Smarteh devices through their respective protocols.

Each PLC device is assigned a unique Device ID, which serves as its identifier for recognition and management within the cloud environment. The term Device ID is used frequently throughout this document. The identifier can be found on the sticker on the back of each Smarteh device, alongside the device model identifier, P/N, S/N, and MAC address. It is also incorporated in the certificate of each device so it can identify itself to the cloud services.

The application also features a modular, user roles and privileges-based access control management system. This allows an integrator user to create various roles and privileges as needed, thereby limiting access to certain services for users or devices. The figure below shows the evaluation page for each role of the currently selected user from the User Management Service page, which integrator admin users can view and inspect per project.

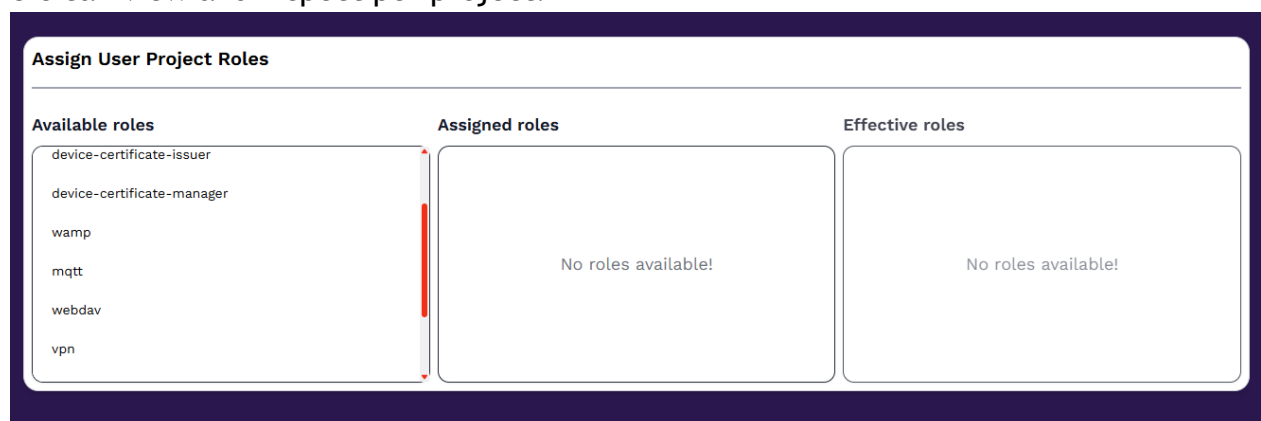


Figure 5: Example of a SmartehCloud Dashboard user project roles lookup



The application is fully secured, adhering to modern standards and guidelines. It integrates the Keycloak SSO system, enabling secure user management and access control for our services. The application is therefore fully compliant with the x.509 security standard.

Users can have different access levels, or scopes. At the top of the user hierarchy are super-users, who have admin rights and can create new integrators, assign users to them, create new roles and privileges, and revoke user or device certificates. Super-users have an overview of and control over the entire application, so this scope is primarily reserved for Smarteh admins.

The second layer of the user hierarchy consists of integrator admin users, who are the owners of different projects. They can create and manage projects, create users, and assign them to their projects. They have an overview of their projects, users, and Smarteh devices. This scope is reserved for companies, building owners, or project owners.

The user hierarchy of our Cloud Dashboard is shown in the figure below.

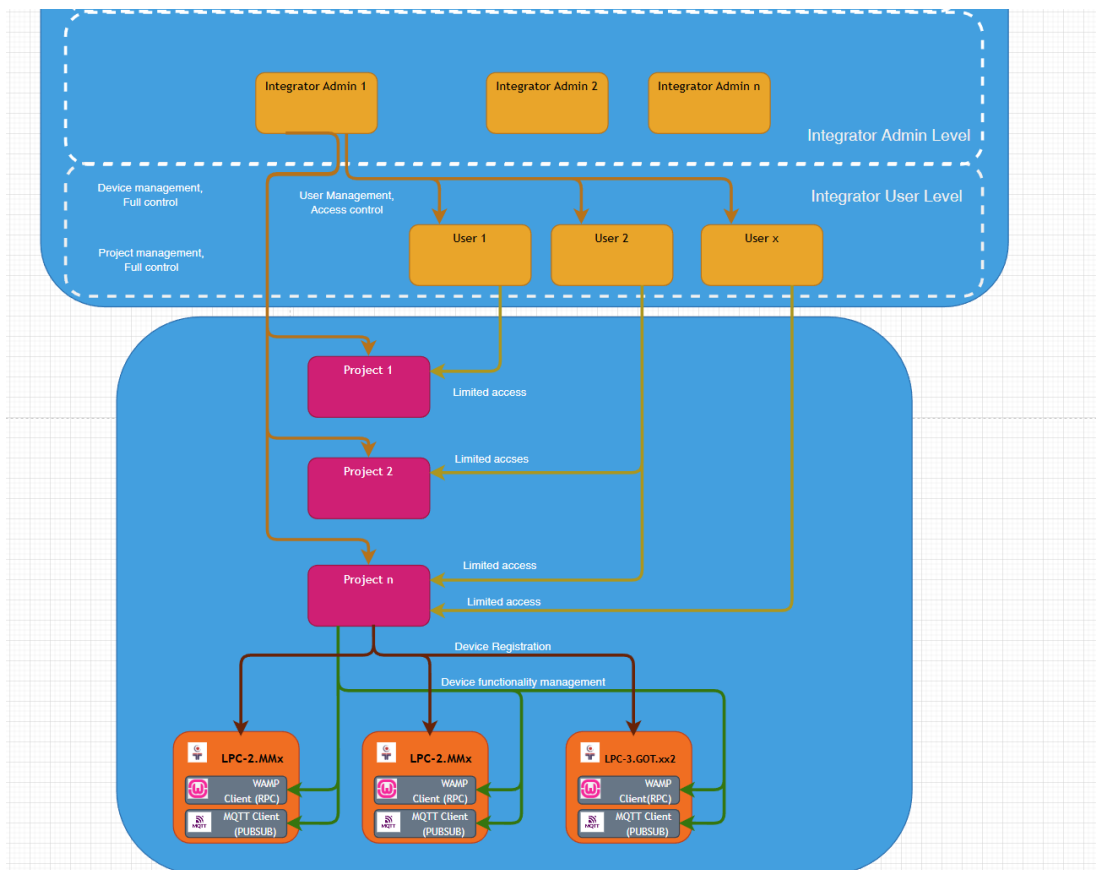


Figure 6: SmartehCloud Dashboard user hierarchy



The third layer of our user hierarchy consists of integrator users, who have limited access to and views of the services within the application. Their access rights can be further adjusted through the roles and privileges system. These users must also be linked to an integrator, as they cannot use any Cloud services without one.

After successfully logging in on the Welcome Page, users are prompted to select an integrator from a list, as one user can be a member of multiple integrators. If the user is also linked to a project, they must select it as well.

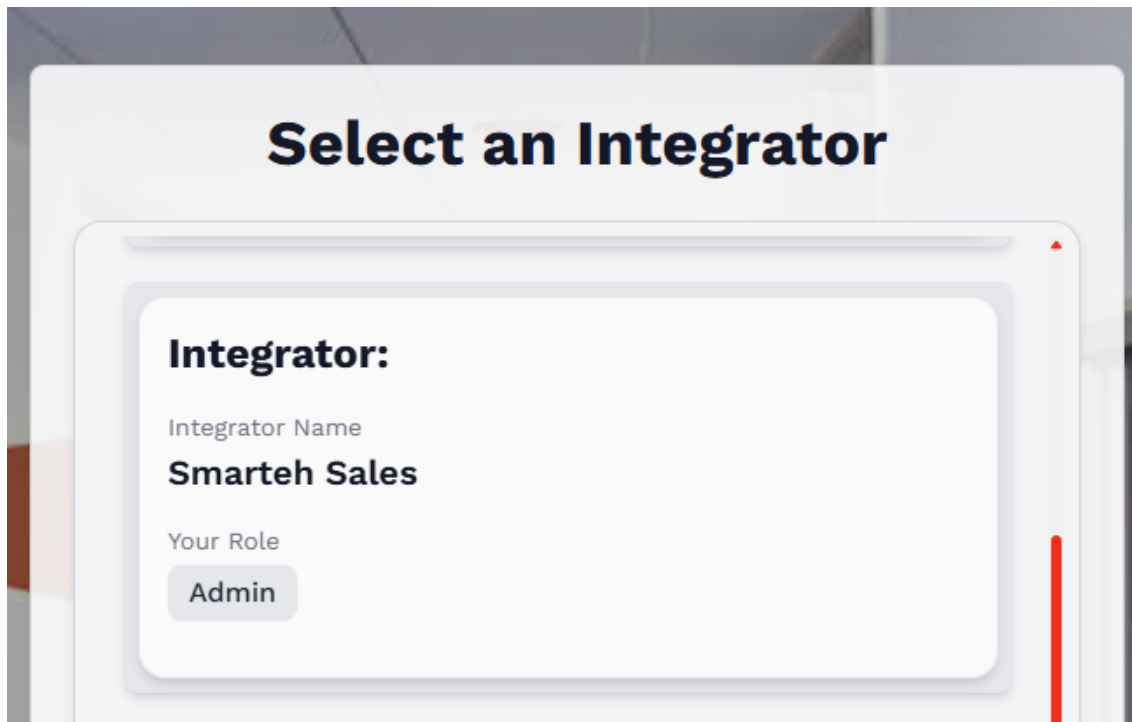


Figure 7: Smarteh Dashboard Integrator selection at login

5 SMARTEH CLOUD DASHBOARD TUTORIAL

5.1 The Landing page, login and Integrator/Project selection

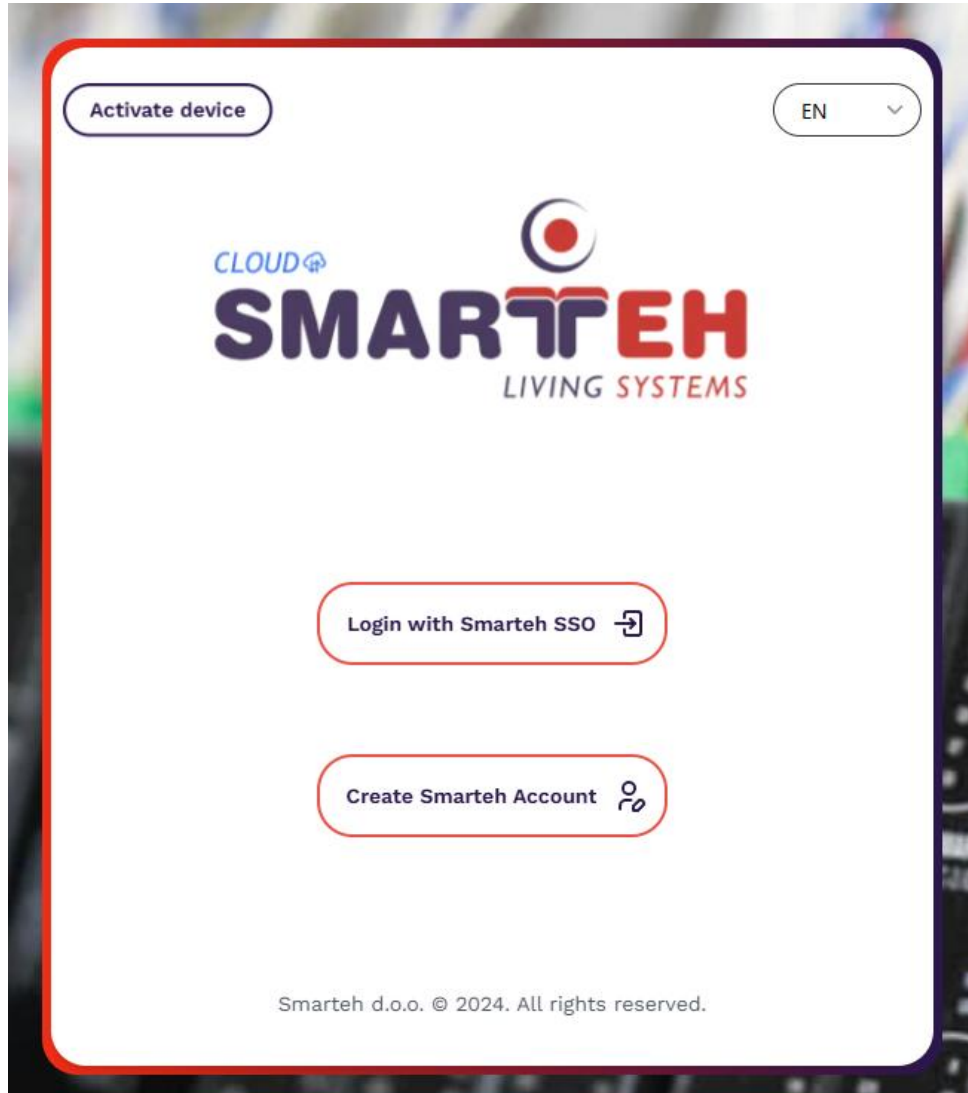


Figure 8: SmartehCloud Dashboard Landing page

The SmartehCloud Dashboard is accessible at <https://cloud.smarteh.com>. Users are directed to the landing page and must log in with their credentials.

After logging in, users are prompted to select their integrator and project (if applicable), which will be set as the global integrator and project for the session. This



can be changed later on the main page.

The login form is a white card with rounded corners. At the top left is the SMARTTEH logo with 'CLOUDS' above it. At the top right is a language dropdown menu showing 'EN' and a 'Back to Cloud' button. The main heading is 'Sign in to SmartehCloud'. Below it are two input fields: 'Email' and 'Password'. The password field has an eye icon for toggling visibility. Below the password field is a checkbox for 'Remember me' and a link for 'Forgot Password?'. At the bottom is a blue 'Sign In' button.

Figure 9: SmartehCloud Dashboard Login form

The project selection form is a white card with rounded corners. The main heading is 'Select a Project'. Below it are two project cards. The first card shows 'Project Name: First Project' and 'Project Building: Home'. The second card shows 'Project Name: Second Project' and 'Project Building: Basement'.

Figure 10: SmartehCloud Dashboard Project selection



5.2 The Main page

The main page consists of a top navigation bar, a services section, and a footer containing information about our company.

5.2.1 Top navigation bar

The top navigation bar features the application's logo, which returns the user to the main page when clicked. The middle section contains buttons linking to pages such as About Cloud, Contact Us, News, and a dropdown menu for switching the application's main language between English and Slovenian. The next row includes buttons for returning to the dashboard, accessing FAQs, and visiting the Support & Downloads page.

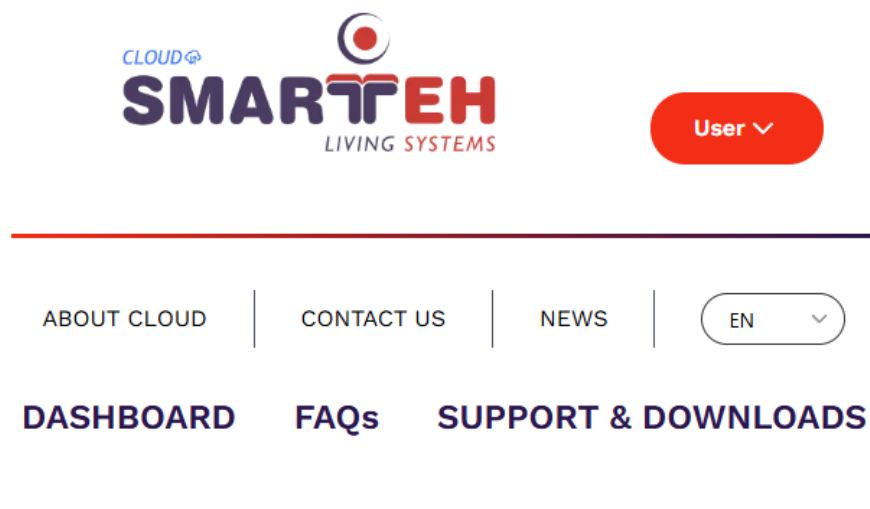


Figure 11: SmarteCloud Dashboard top navigation bar.

It also features a User Settings dropdown, allowing users to select the current integrator, project, change their account details, and log out.

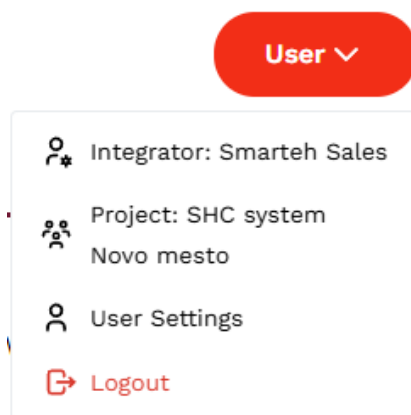


Figure 12: SmarteCloud Dashboard's User Settings dropdown

5.2.2 Project and Integrator Context Section

In this section, the user can select the current Integrator and Project, as well as inspect the currently selected ones. By clicking on User, the user is taken to their user account settings, and by clicking on the Theme button, they can switch between light and dark themes for the GUI.

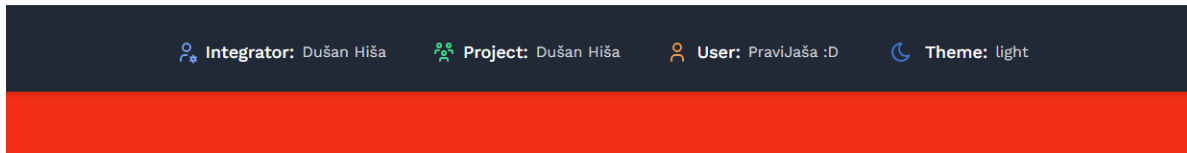


Figure 13: SmartehCloud Project and Integrator context section

5.2.3 Services section

The services section consists of tiles, each linking to its own service page when clicked. At the top of this section, the current integrator and project are also displayed. The section becomes scrollable when the screen size is reduced.

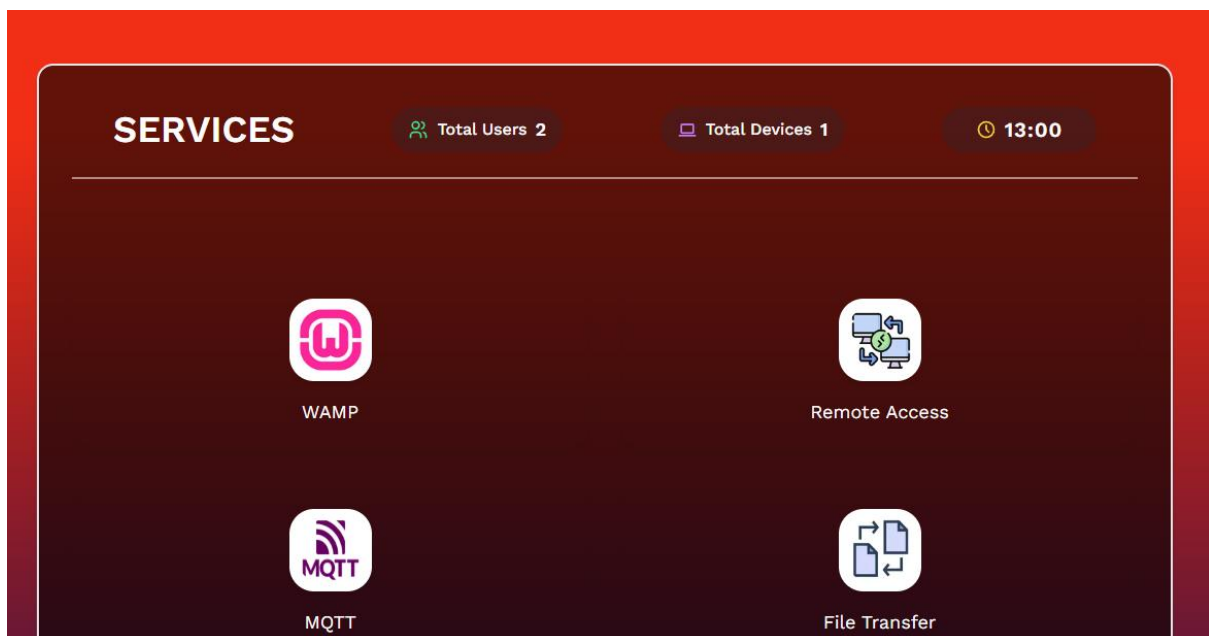


Figure 14: SmartehCloud Dashboard Services section

5.2.4 Footer section

In the footer section, the main information about our company is displayed, along with links to our main website and buttons that direct users to our LinkedIn and YouTube profiles.

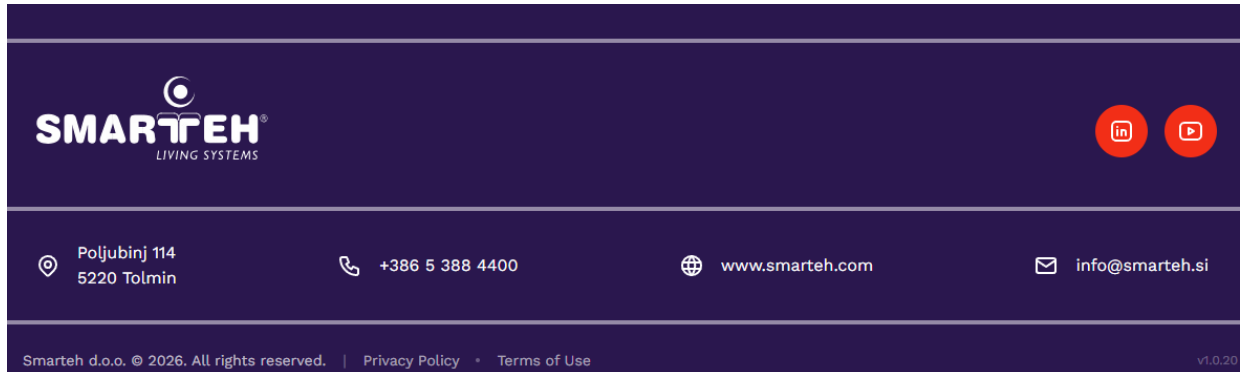
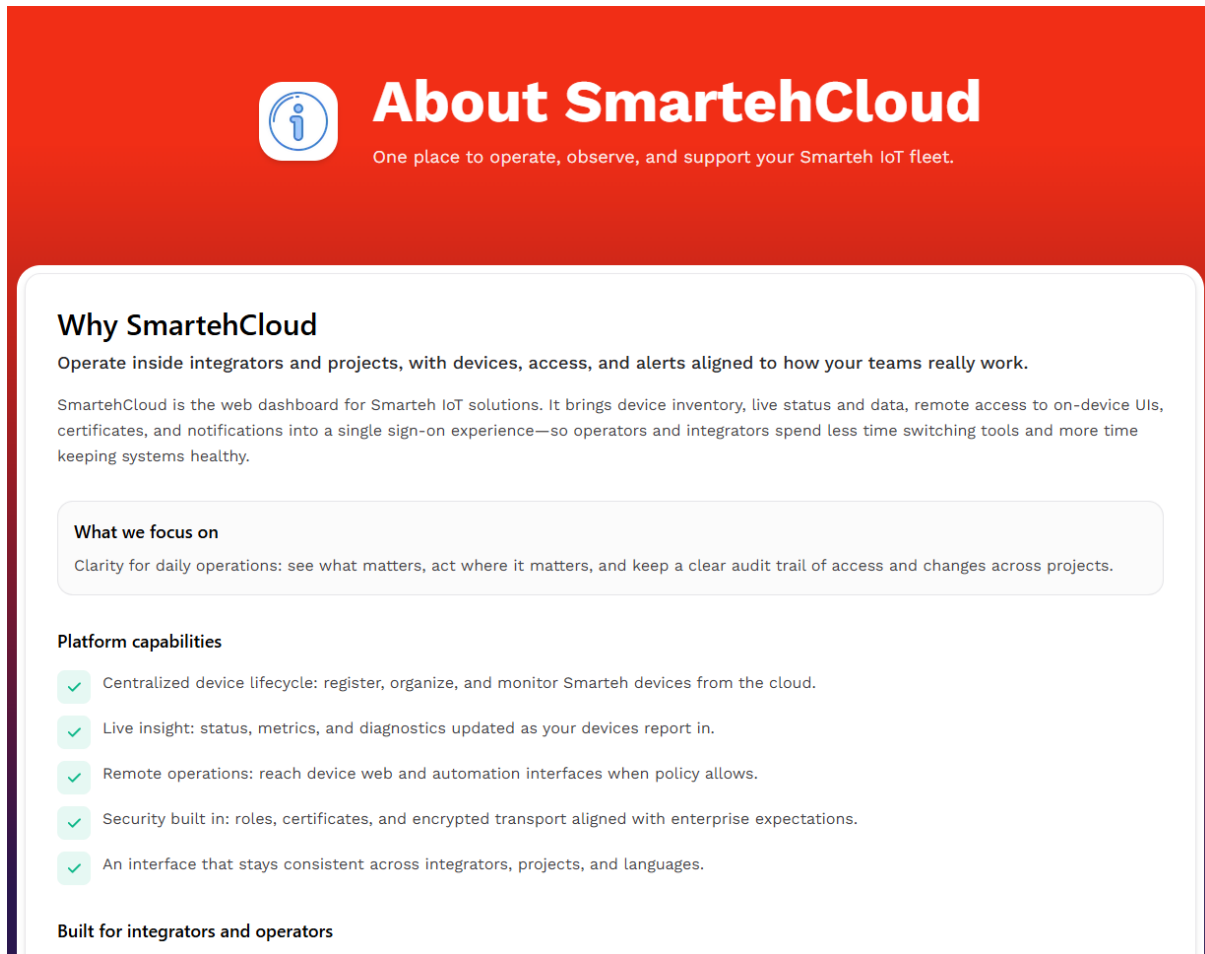


Figure 15: SmartehCloud Dashboard Footer section

5.3 About Cloud page

The About Cloud page holds some key information about our cloud services.



The screenshot shows the 'About SmartehCloud' page. It features a red header with a blue information icon and the title 'About SmartehCloud' in white. Below the title is the tagline 'One place to operate, observe, and support your Smarteh IoT fleet.' The main content area is white and contains the following sections:

- Why SmartehCloud**

Operate inside integrators and projects, with devices, access, and alerts aligned to how your teams really work.

SmartehCloud is the web dashboard for Smarteh IoT solutions. It brings device inventory, live status and data, remote access to on-device UIs, certificates, and notifications into a single sign-on experience—so operators and integrators spend less time switching tools and more time keeping systems healthy.
- What we focus on**

Clarity for daily operations: see what matters, act where it matters, and keep a clear audit trail of access and changes across projects.
- Platform capabilities**
 - ✓ Centralized device lifecycle: register, organize, and monitor Smarteh devices from the cloud.
 - ✓ Live insight: status, metrics, and diagnostics updated as your devices report in.
 - ✓ Remote operations: reach device web and automation interfaces when policy allows.
 - ✓ Security built in: roles, certificates, and encrypted transport aligned with enterprise expectations.
 - ✓ An interface that stays consistent across integrators, projects, and languages.
- Built for integrators and operators**

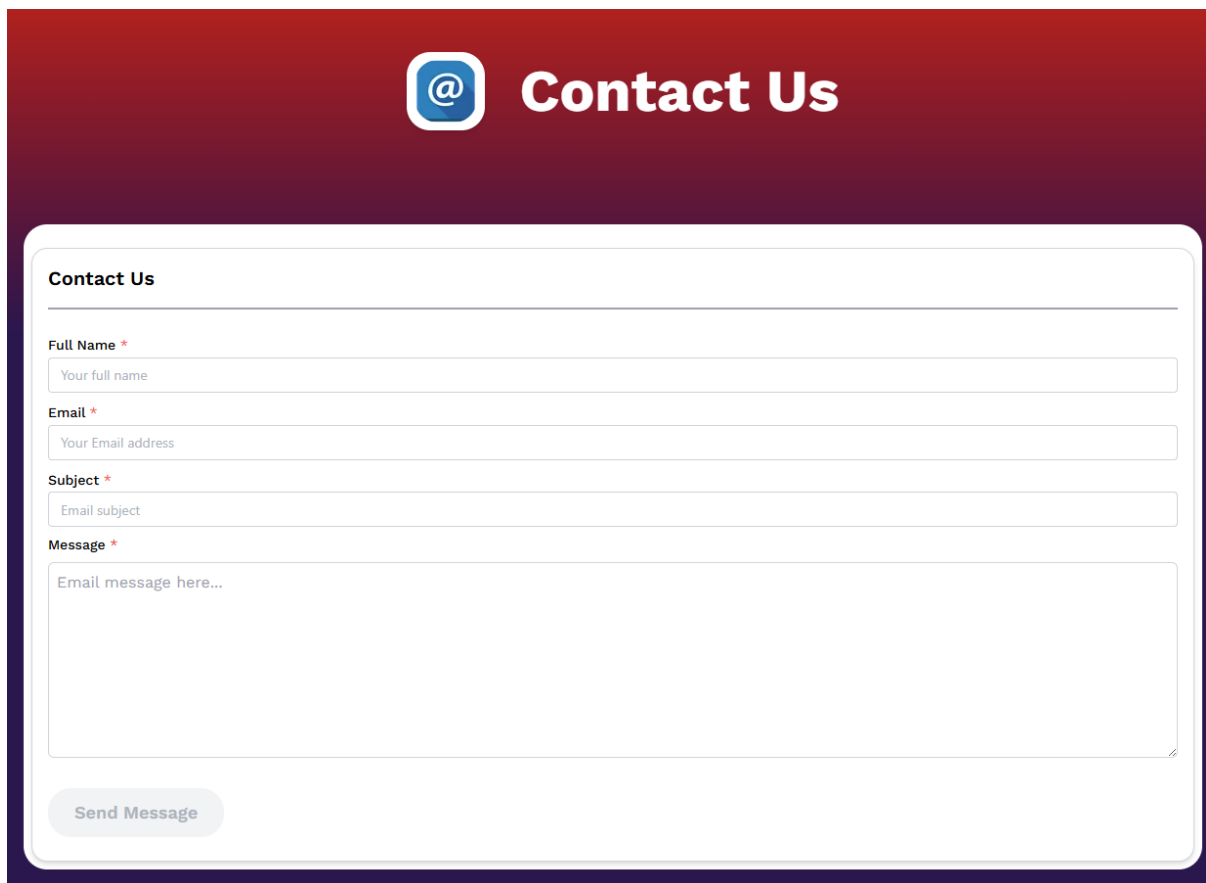
Figure 16: SmartehCloud About page

5.4 Contact Us page

The Contact Us page allows users to contact us with any question of information they want to share or get.

Here the Input fields are:

1. **Full Name** (Accepts users full name, number of characters is not limited)
2. **Email** (Accepts a valid user email)
3. **Subject** (Accepts a subject of the email message, number of cahracters is not limited)
4. **Message** (Accepts a message for this email, number of characters is not limited)



The screenshot shows the 'Contact Us' page with a dark red header. The header contains an '@' icon in a blue circle and the text 'Contact Us' in white. Below the header is a white form with a light gray border. The form has a title 'Contact Us' and four input fields: 'Full Name *' with placeholder 'Your full name', 'Email *' with placeholder 'Your Email address', 'Subject *' with placeholder 'Email subject', and 'Message *' with placeholder 'Email message here...'. A 'Send Message' button is at the bottom of the form.

Figure 17: SmartehCloud Contact Us page

5.5 FAQs page

The Frequent Answers and Questions page displays commonly asked questions along with answers provided by our support team. The list is regularly updated.

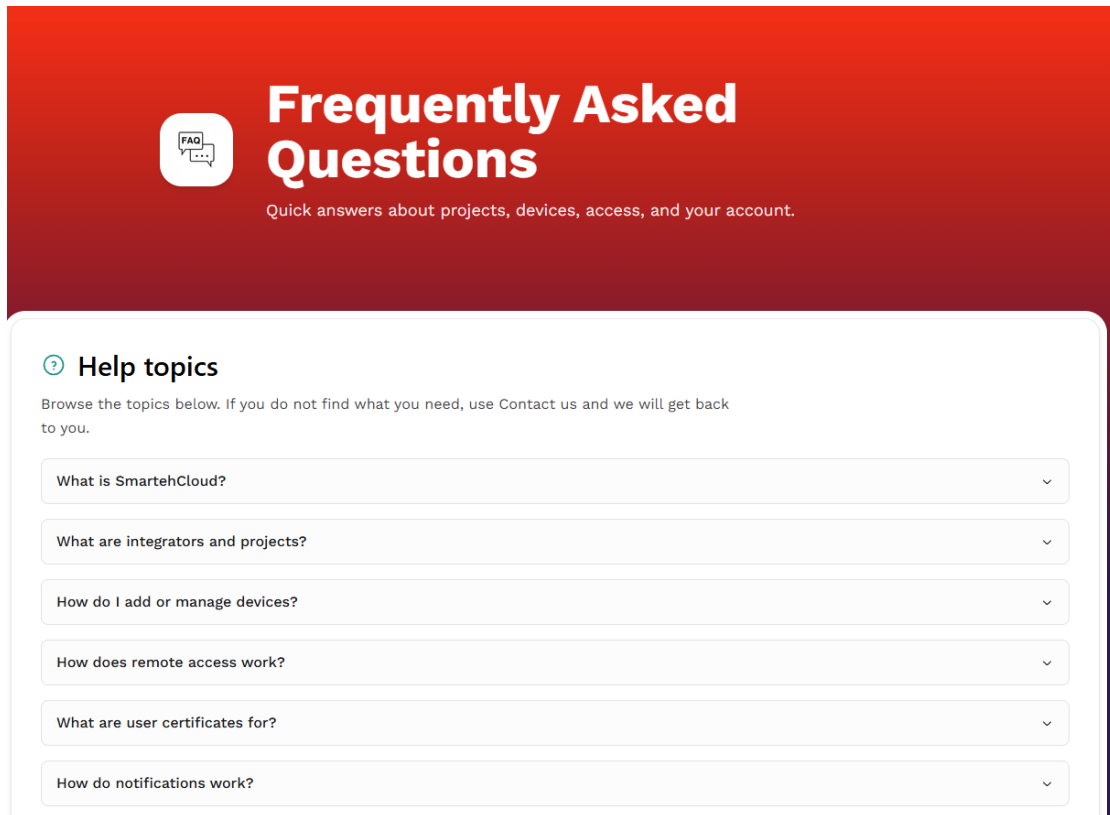


Figure 18: SmartehCloud Frequently Asked Questions page

5.6 News page

The News page sources information from our company website at www.smarteh.com, where recent products and interesting news about our company are shared.

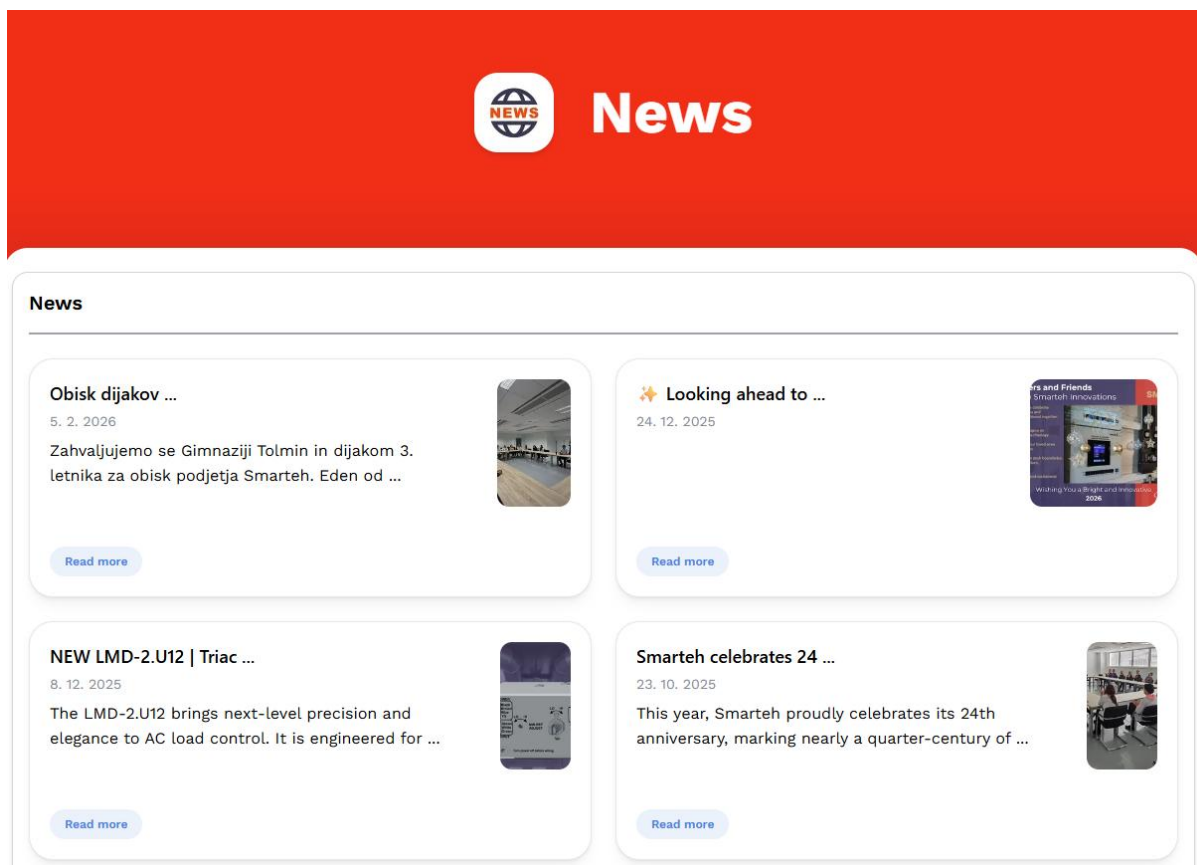


Figure 19: SmartehCloud News page

5.7 Support & Downloads page

The Support & Downloads page also provides information from our company website at www.smartecloud.com, where user manuals, catalogues, various software and firmware, and other examples are available.

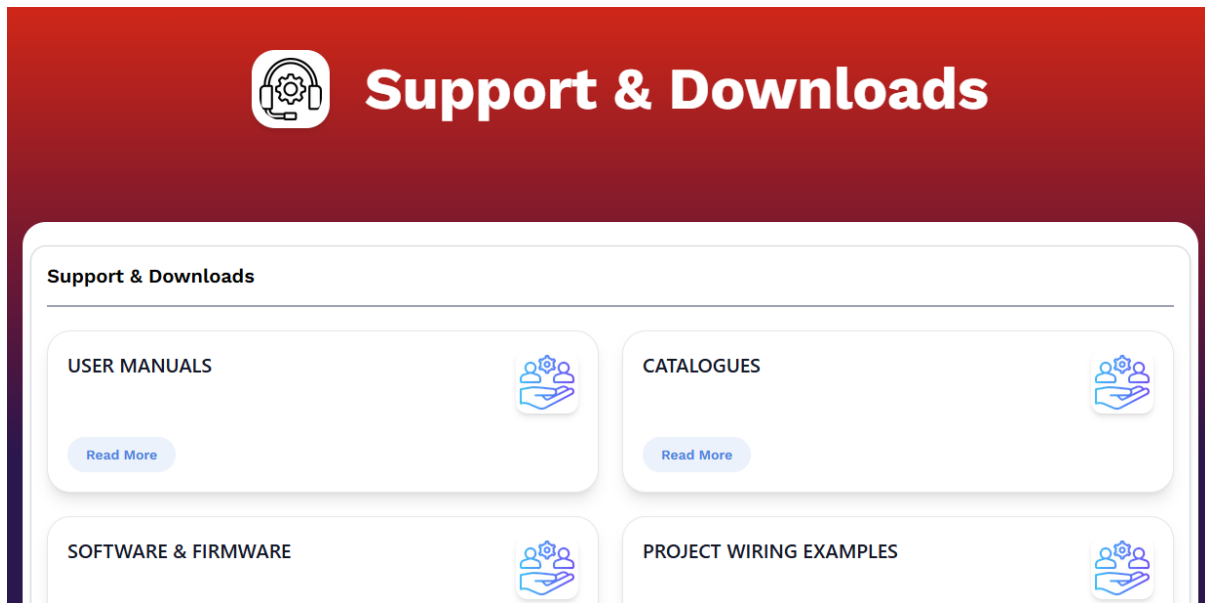
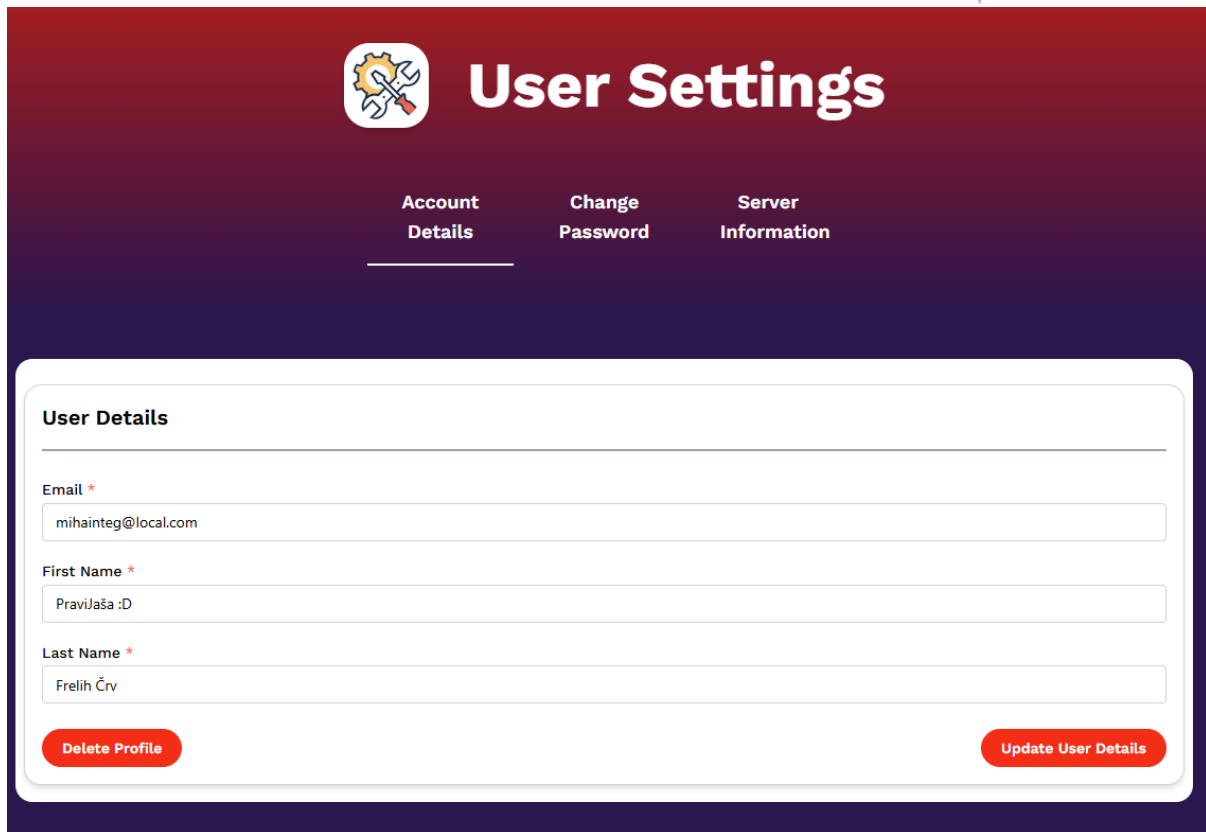


Figure 20: SmarteCloud Support & Downloads page

5.8 User Settings page

From the User Settings dropdown, users can access the User Settings page, the page can also be accessed via a Service icon. User Settings page is a place where users can update their user details on the Account Details tab or change their password on the Change Password tab. Users can also see Server information where connection strings for connecting to various services that our devices support are located.



The image shows a 'User Settings' interface with a dark red header. A gear icon is next to the title. Below the title are three tabs: 'Account Details' (selected), 'Change Password', and 'Server Information'. The 'Account Details' tab contains a form with three input fields: 'Email *' (containing 'mihainteg@local.com'), 'First Name *' (containing 'PraviJaša :D'), and 'Last Name *' (containing 'Frelih Črv'). At the bottom of the form are two buttons: 'Delete Profile' and 'Update User Details'.

Figure 21: SmarteCloud Dashboard Account Details tab

Here the Input fields are:

5. **Email** (Accepts user email address, number of characters is not limited)
6. **Name** (Accepts user name, number of characters is not limited)
7. **Last Name** (Accepts user last name, number of characters is not limited)

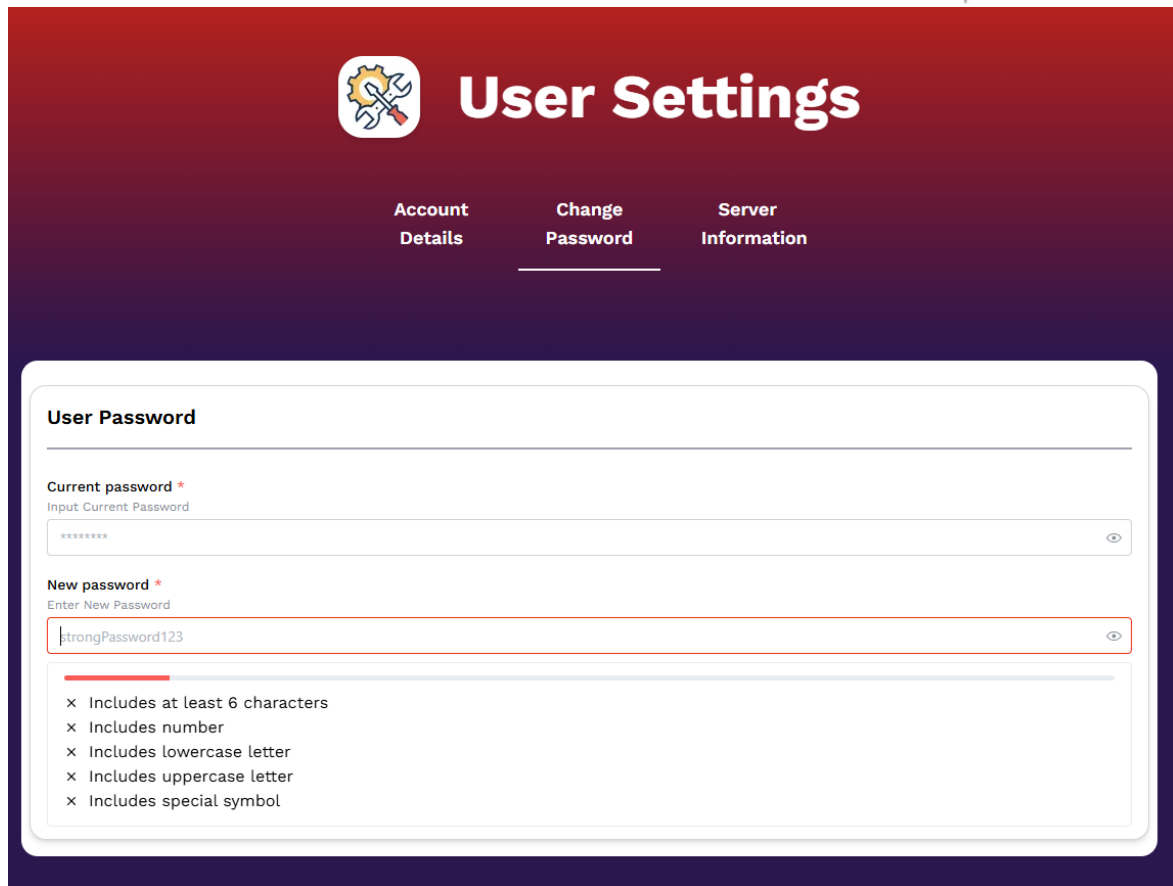
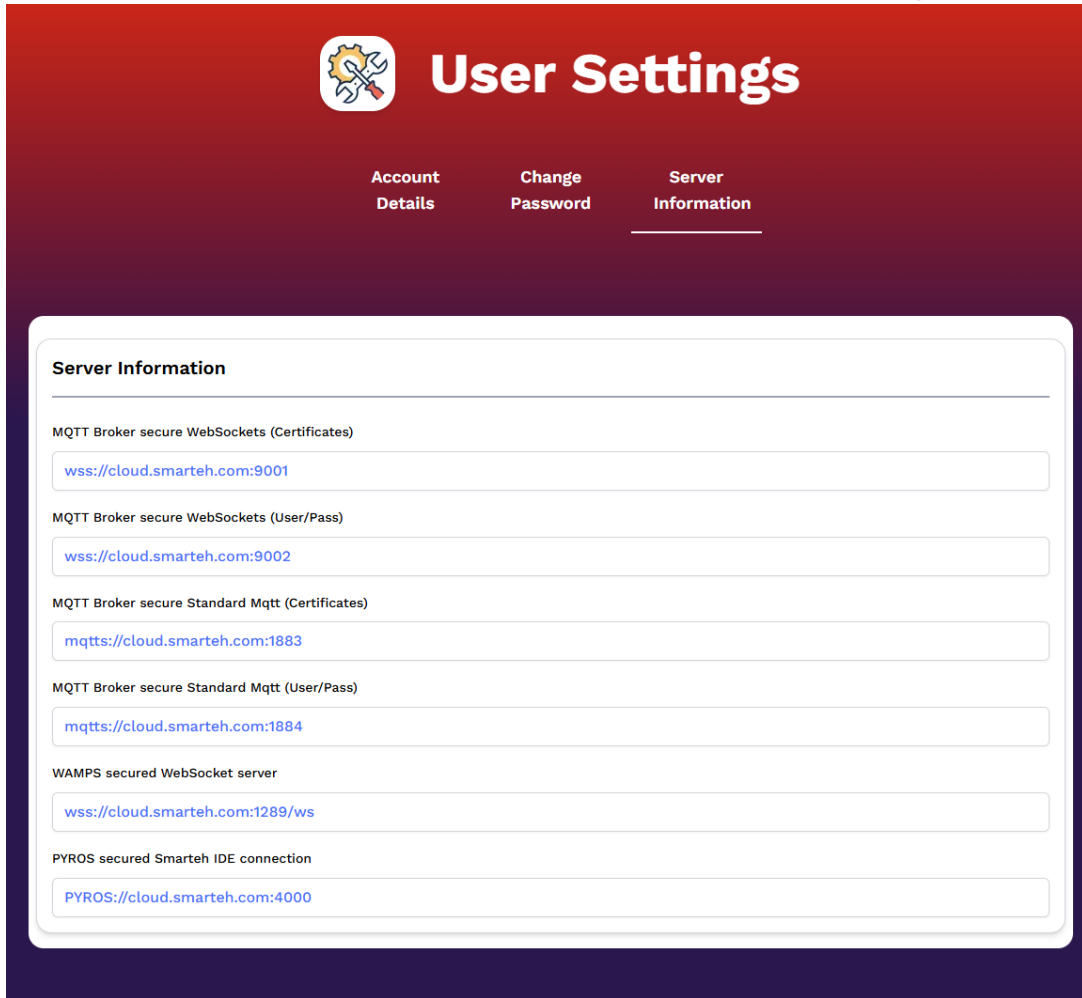


Figure 22: SmarteCloud Dashboard Change Password tab

Here the Input fields are:

1. **Current Password** (Accepts the current password, number of characters is not limited)
2. **New Password** (Accepts the new password, number of characters is not limited)
3. **Confirm Password** (Accepts the new password, number of characters is not limited)

The New Password and Confirm Password fields feature a built-in password strength meter, which informs the user when their password is strong enough to be accepted. It also checks if both passwords match.



The image shows the 'User Settings' page with the 'Server Information' tab selected. The page has a red header with a gear icon and the title 'User Settings'. Below the header are three tabs: 'Account Details', 'Change Password', and 'Server Information'. The 'Server Information' tab is active and contains a list of connection strings for various protocols: MQTT Broker secure WebSockets (Certificates), MQTT Broker secure WebSockets (User/Pass), MQTT Broker secure Standard Mqtt (Certificates), MQTT Broker secure Standard Mqtt (User/Pass), WAMPS secured WebSocket server, and PYROS secured Smarteh IDE connection. Each entry has a text input field with a blue link icon.

Protocol	Connection String
MQTT Broker secure WebSockets (Certificates)	wss://cloud.smarteh.com:9001
MQTT Broker secure WebSockets (User/Pass)	wss://cloud.smarteh.com:9002
MQTT Broker secure Standard Mqtt (Certificates)	mqtt://cloud.smarteh.com:1883
MQTT Broker secure Standard Mqtt (User/Pass)	mqtt://cloud.smarteh.com:1884
WAMPS secured WebSocket server	wss://cloud.smarteh.com:1289/ws
PYROS secured Smarteh IDE connection	PYROS://cloud.smarteh.com:4000

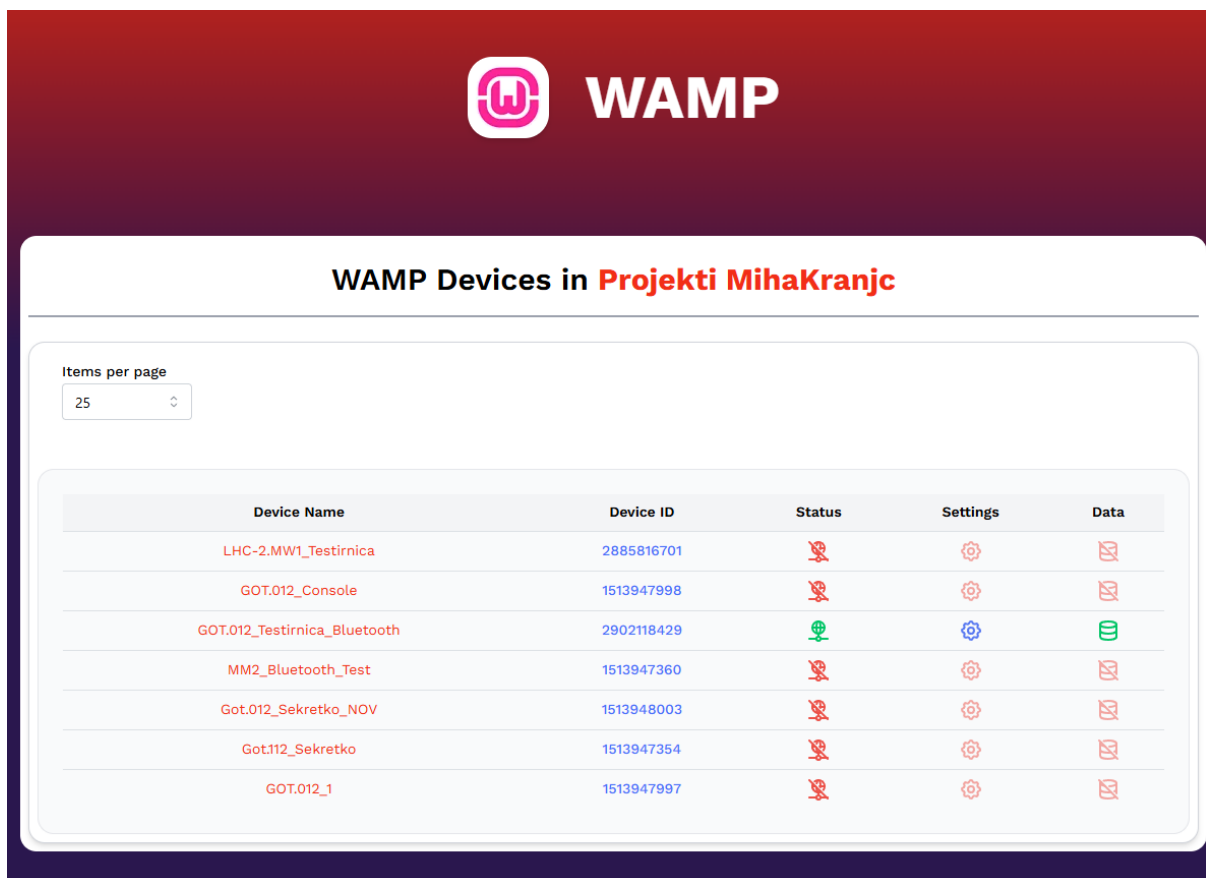
Figure 23: SmartehCloud Dashboard Server information tab

Server information tab of User Settings has copiable connection strings that are useful for connecting to our cloud services via Smarteh devices or any other devices that are connected to our cloud services.

5.9 The WAMP Service page

The WAMP page displays devices using the WAMP protocol. WAMP (Web Application Messaging Protocol) is a real-time messaging protocol that enables communication between application components using publish-subscribe and remote procedure call (RPC) patterns. It is used with our PLC and other devices to debug their applications, to update their firmware and also to get information on the status of the device over this remote connection.

The WAMP Service page is showing the status of each device along with their Device ID, name, and description. It also allows users to reconnect these devices to the WAMP service.



Device Name	Device ID	Status	Settings	Data
LHC-2.MW1_Testirnica	2885816701	Disconnected	Settings	Data
GOT.012_Console	1513947998	Disconnected	Settings	Data
GOT.012_Testirnica_Bluetooth	2902118429	Connected	Settings	Data
MM2_Bluetooth_Test	1513947360	Disconnected	Settings	Data
Got.012_Sekretko_NOV	1513948003	Disconnected	Settings	Data
Got.112_Sekretko	1513947354	Disconnected	Settings	Data
GOT.012_1	1513947997	Disconnected	Settings	Data

Figure 24: SmarteCloud Dashboard's WAMP service page

The WAMP Service page is showing the status of each device along with their device ID, name, and description. It also allows users to go further to settings of the device and also see the Data that is posted to the WAMP service.

The settings page has information about device status and user can also start and stop the program of the device on this page. User can also upload a new version of PLC project to the device.

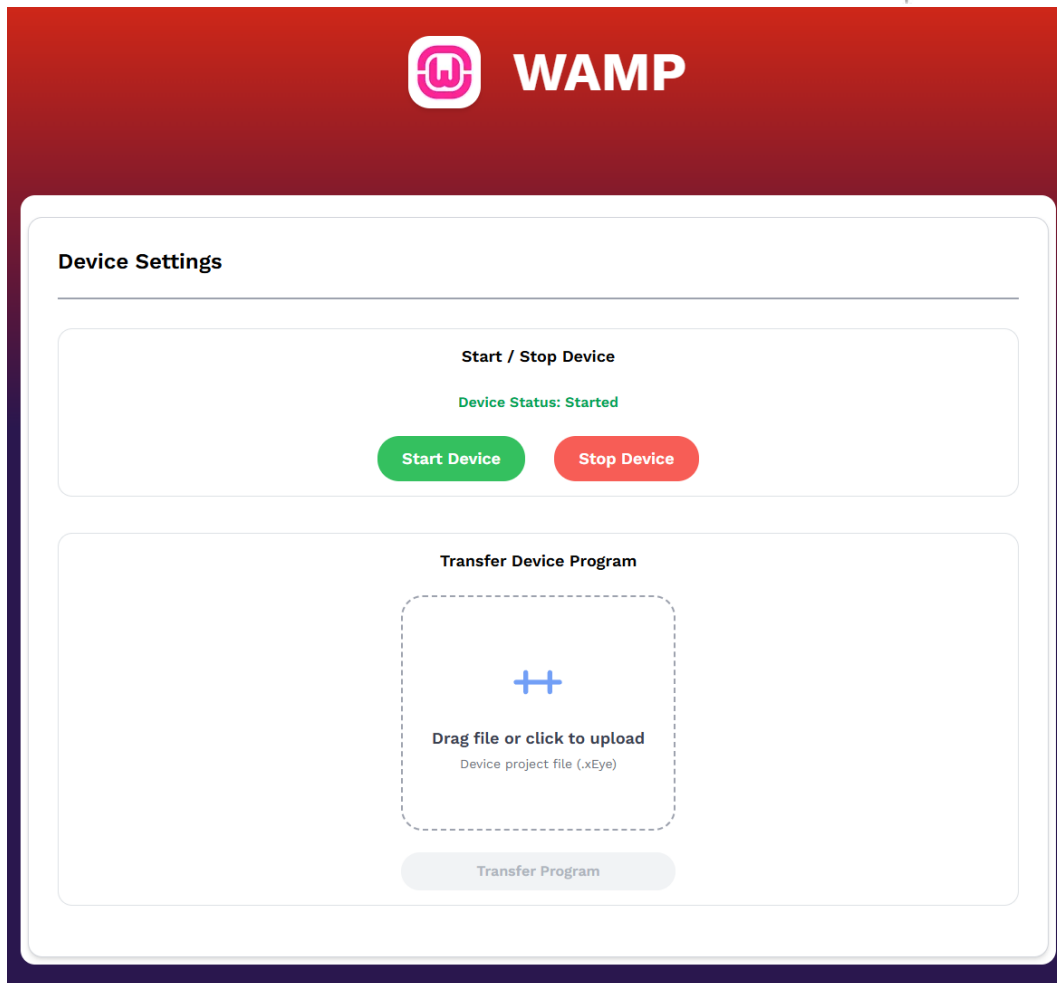


Figure 25: SmarteCloud WAMP service settings page

The data view page allows users to see all WAMP variables that PLC project has exposed for remote control. Users can therefore observe alarms, statics and session variables there. Static values can also be set to local storage where each of the set data is saved in the cloud storage and also set these values directly to the PLC. Users can also turn on live fetch where selected variables are then shown in a live graph.

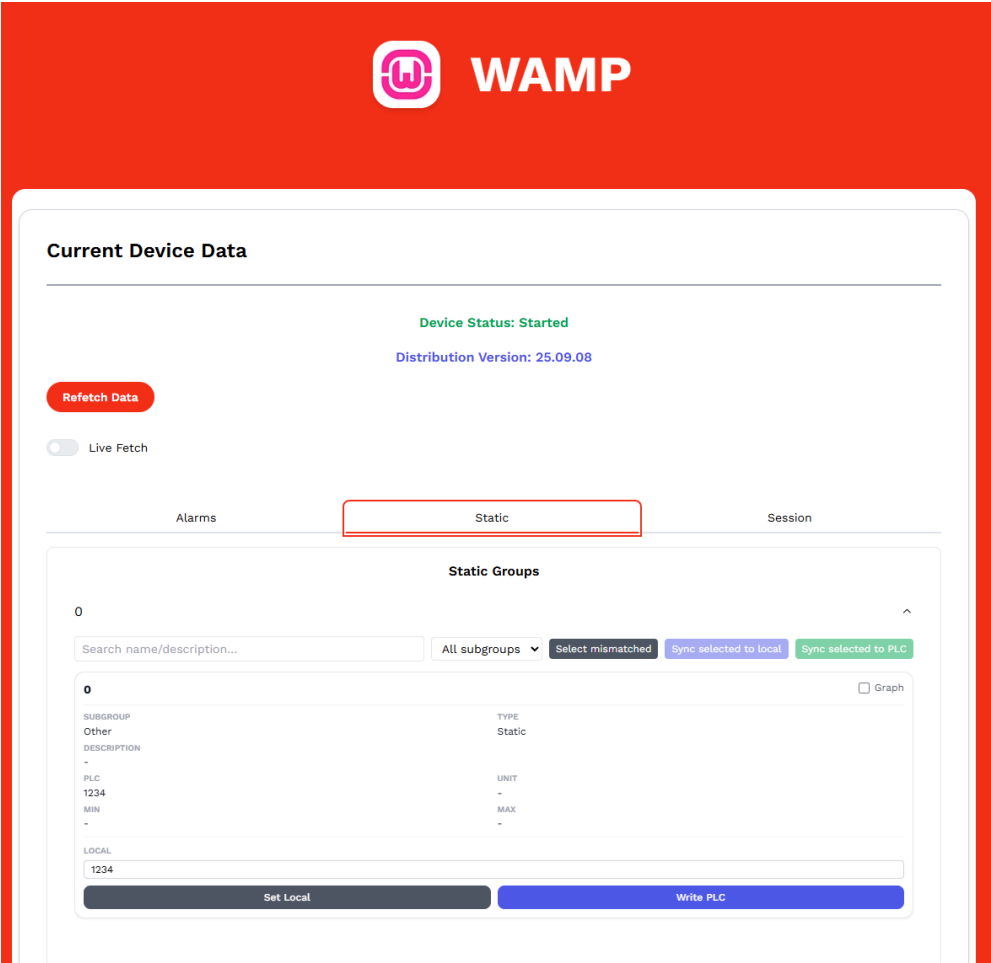
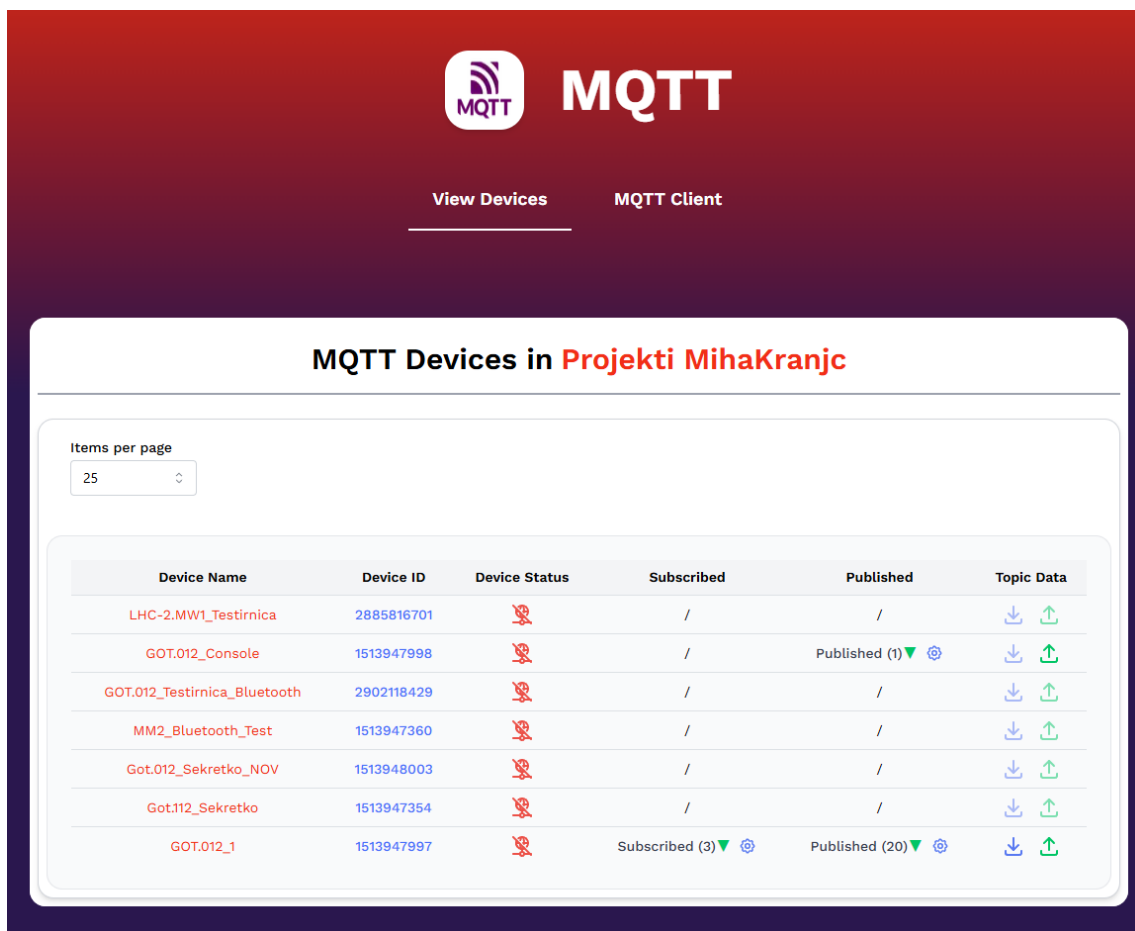


Figure 26: SmartehCloud WAMP service data page



5.10 The MQTT Service page

The MQTT page displays devices using the MQTT protocol. MQTT (Message Queuing Telemetry Transport) is a lightweight, publish-subscribe messaging protocol designed for low-bandwidth, high-latency, or unreliable networks. MQTT operates over TCP/IP and focuses on efficient message delivery with minimal overhead. It supports message queues, allowing clients to publish messages to topics and subscribe to receive updates. It is used with our PLC and other devices to send and receive data that is then tied to their PLC application variables, to send different files to the device and also to get information on the status of the device over this remote connection.



Device Name	Device ID	Device Status	Subscribed	Published	Topic Data
LHC-2.MW1_Testirnica	2885816701		/	/	
GOT.012_Console	1513947998		/	Published (1)	
GOT.012_Testirnica_Bluetooth	2902118429		/	/	
MM2_Bluetooth_Test	1513947360		/	/	
Got.012_Sekretko_NOV	1513948003		/	/	
Got.112_Sekretko	1513947354		/	/	
GOT.012_1	1513947997		Subscribed (3)	Published (20)	

Figure 27: SmarteCloud Dashboard's MQTT Service page

The MQTT Service page view Devices tab is showing the status of each device along with their device ID and name. It also lists the topics to which the device is subscribed or publishes. The topic can be refined so users can enable or disable which topics are displayed for certain device. Users can also see Topic data for subscribed or published topics.



On the topics data page users can inspect current MQTT messages for selected topics, they can show them on a graph and also turn on live fetch. There are different MQTT message formatting options with an option to also change the PLC format of the variable.

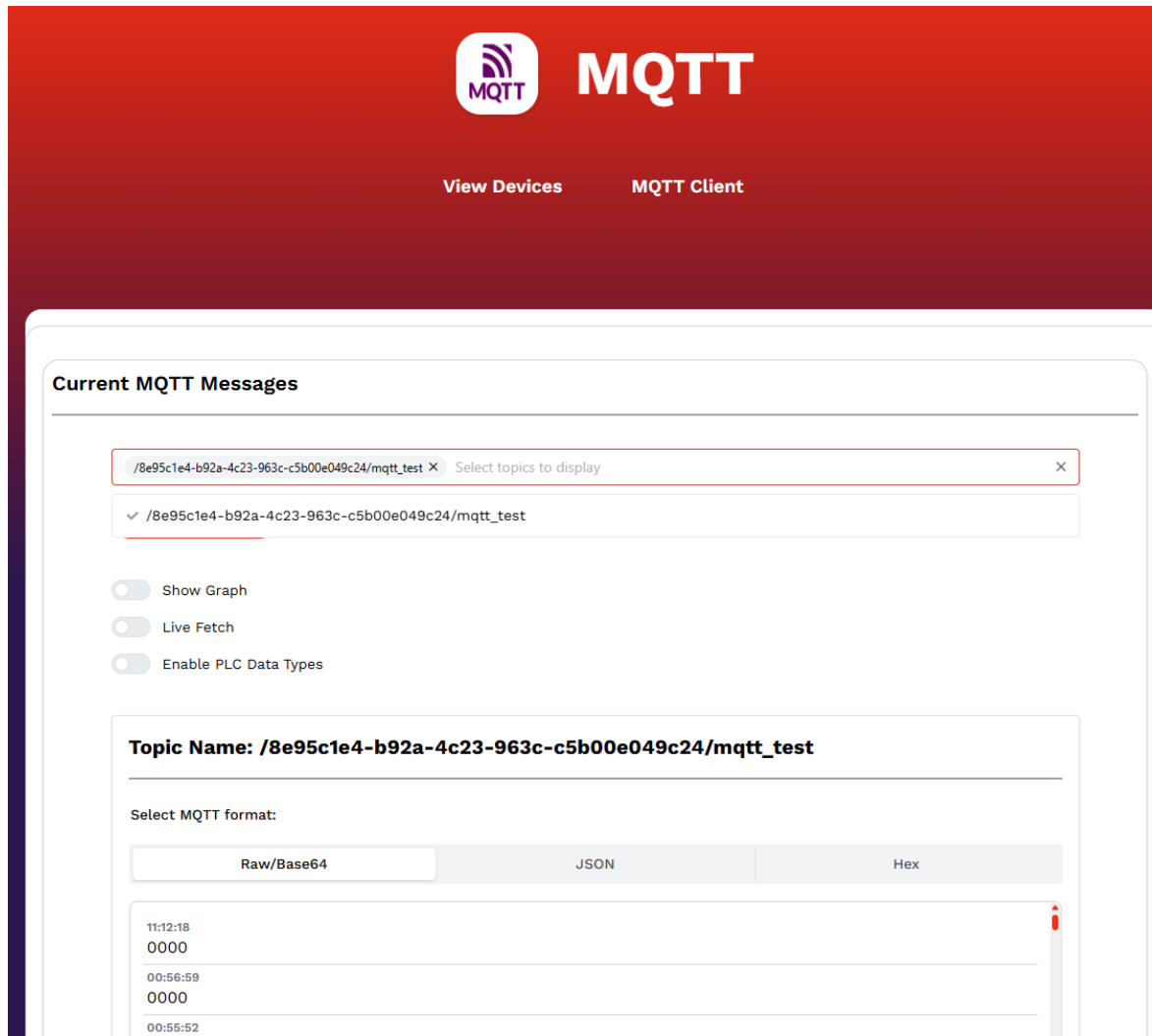


Figure 28: SmarteCloud Dashboard's MQTT Topics data page

The MQTT Client tab takes user to a client for connection to our MQTT broker with login credentials that are the same as those for logging in to our cloud dashboard. Users can create their own dashboards there and then also style them. When connecting to our broker the dashboard that was created shows and users can communicate to their devices and control them from there.

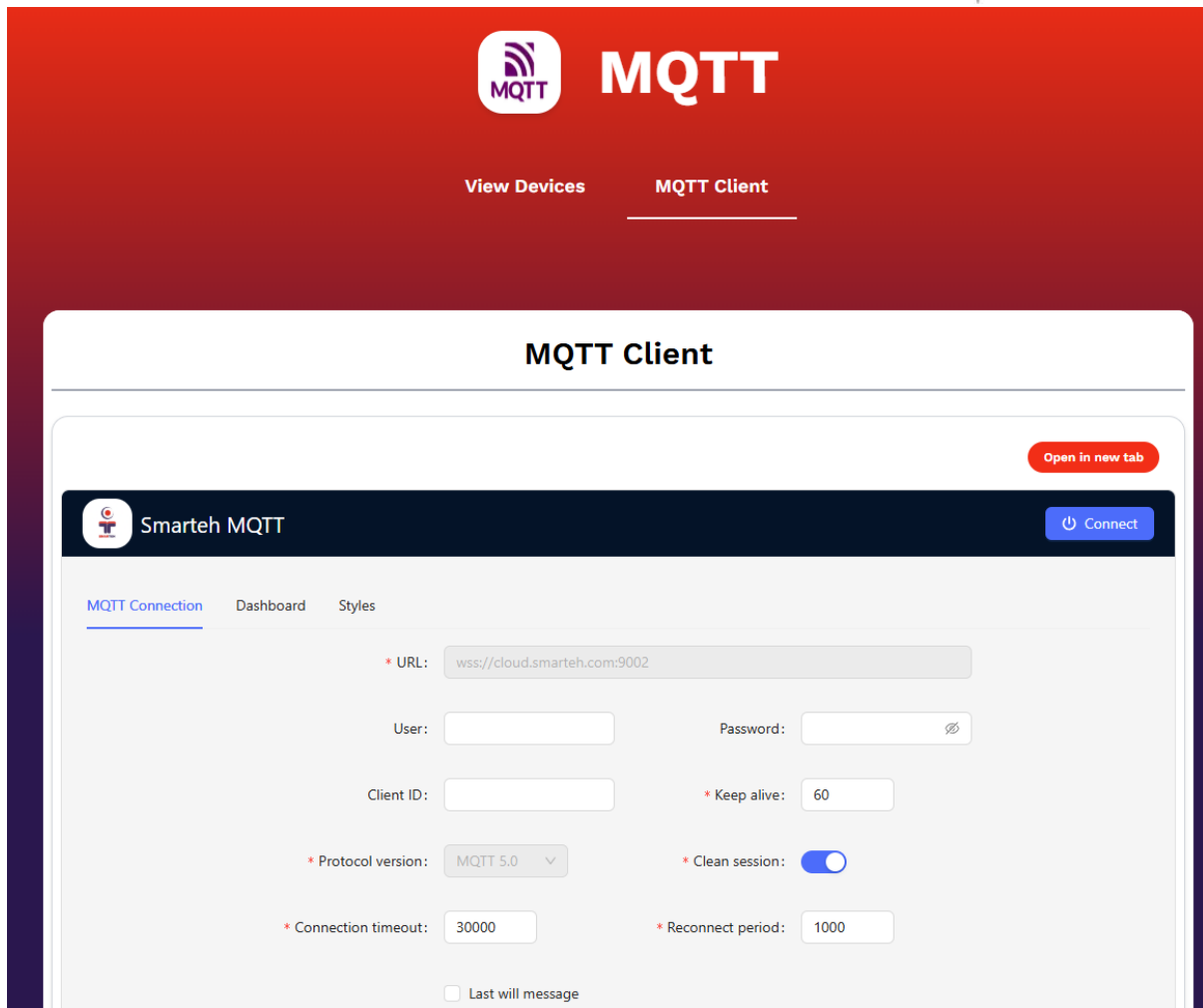


Figure 29: SmartehCloud MQTT Client page

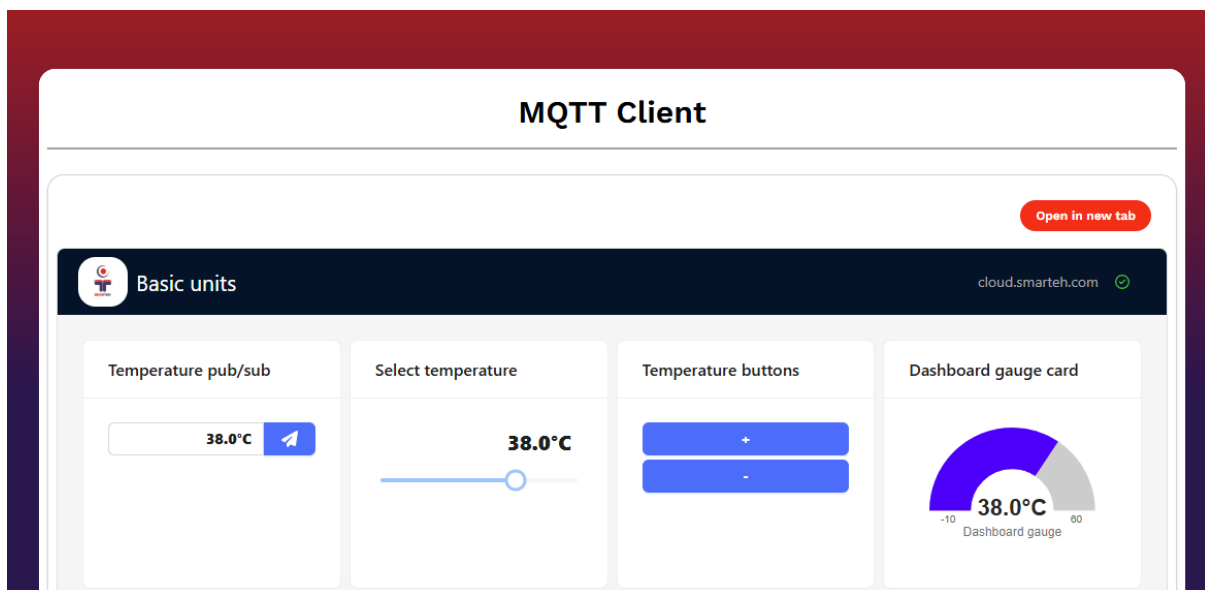
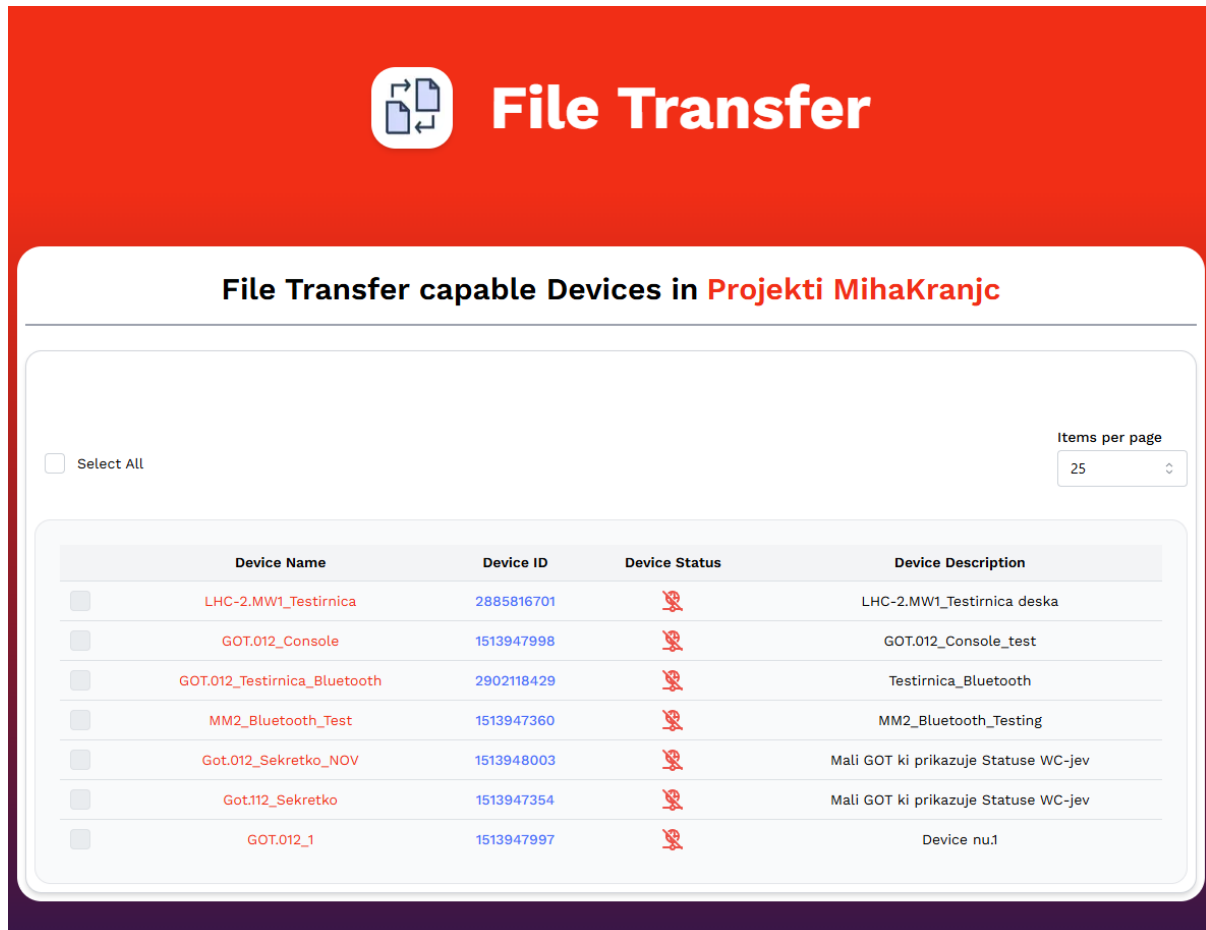


Figure 30: SmartehCloud custom dashboard in MQTT client example

5.11 The File Transfer service page

The File Transfer service uses WebDAV (Web Distributed Authoring and Versioning) which is an extension of the HTTP protocol that allows for remote management and editing of files on a web server. It enables users to create, move, delete, and modify files and directories over the internet, offering functionality similar to working with files on a local system.



File Transfer

File Transfer capable Devices in Projekti MihaKranjc

☐ Select All Items per page: 25

Device Name	Device ID	Device Status	Device Description
☐ LHC-2.MW1_Testirnica	2885816701		LHC-2.MW1_Testirnica deska
☐ GOT.012_Console	1513947998		GOT.012_Console_test
☐ GOT.012_Testirnica_Bluetooth	2902118429		Testirnica_Bluetooth
☐ MM2_Bluetooth_Test	1513947360		MM2_Bluetooth_Testing
☐ Got.012_Sekretko_NOV	1513948003		Mali GOT ki prikazuje Statuse WC-jev
☐ Got.112_Sekretko	1513947354		Mali GOT ki prikazuje Statuse WC-jev
☐ GOT.012_1	1513947997		Device nu.1

Figure 31: SmartehCloud Dashboard's File Service Details Panel

This page consists of two panels. The Device Panel allows users to select the devices from which they want to retrieve the uploaded files. Users can select a single device, multiple devices, or all devices using the Select All button.

The File Transfer options Panel allows users to download files to their devices. Users must first select the File Type in this panel, which updates the path on the WebDAV server. The panel also displays details about the uploaded file, such as its size, file path on the WebDAV server, and the date of creation. The options are displayed on Download to Device tab.





Here the input dropdown is:

1. **File Type** (gives the user the choice to which directory on WebDAV server to save the file)
2. Here the file transfer input field takes:
3. **ZIP files** (a single or multiple zip file containing multiple zipped files)
4. **Unzipped files** (multiple or single unzipped files)

File size for each transfer is currently limited to 100MB for each transfer.

Figure 32: SmartehCloud Dashboard's File Transfer options Panel

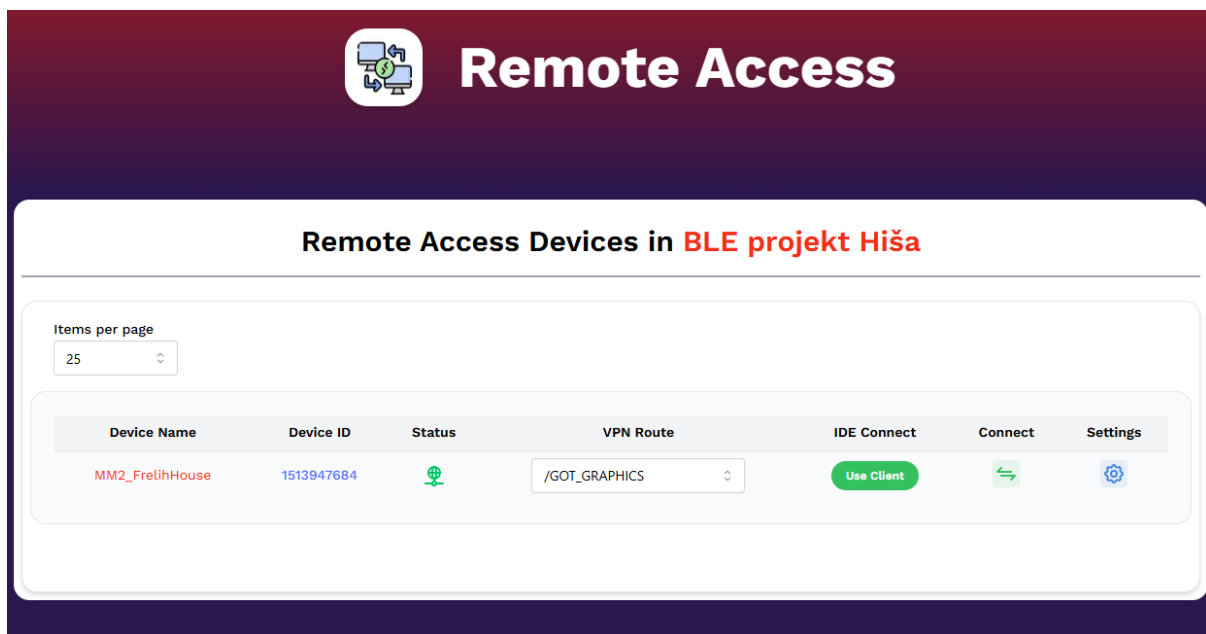
On the Upload from Device tab users can upload the whole cloud directory as a .zip archive from selected devices.

Figure 33: SmartehCloud Dashboard's Upload data from device



5.12 The Remote Access Service page

The Remote Access service allows users to connect to their devices web settings or local web application with GUI using a VPN bridge. The connection is fully secure and session based, so each person has its own connection session to the device. The service allows the user to choose the VPN route or base url to the device, connect via Smarteh IDE which uses a PYROS bridge, user can then also use connect to connect to the devices web GUI or settings to connect to the device web settings page. The IDE connect button when pressed locks the connection bridge for that person and when he uses the correct url string in Smarteh IDE to connect to that device over our cloud services the connection lock is disabled also it is automatically disabled after 60s.



Device Name	Device ID	Status	VPN Route	IDE Connect	Connect	Settings
MM2_FreljHouse	1513947684	ON	/GOT_GRAPHICS	Use Client	↔	⚙️

Figure 34: SmartehCloud Remote Access page

5.13 The Certificates Service Page

SmartehCloud implements user and device authorization and authentication using client/server certificates signed by our own Certificate Authority. The certificates represent a new better way of securing user and device connections to the cloud. The certificates replace the old way of username/password login which is more unsafe. The certificates can be generated for each of the devices and users. Devices use the certificates to connect to the cloud (MQTT protocol, WAMP protocol, Web-DAV protocol) and therefore identify themselves. Users must use the certificates to authenticate and connect to the cloud services. Furthermore if they use 3rd party clients for protocols such as MQTT they also need these certificates to connect to the cloud services.

The Certificate Service page allows users to view details about their own or their devices' certificates. Users can also revoke or create new certificates for themselves or their devices and download them. The page consists of two sections: the left section, where device certificates can be created, revoked, or viewed. If the Create Certificate icon is red, It means the certificate is already created, and it can only be revoked, or its details can be obtained. In the right section, the current user's certificates can be revoked, created, or viewed.

Create Device Certificate

Device Name	Cloud ID	Current Certificate	Create Certificate	Revoke Certificate
TestniDevice	1251251251251251251			
TestJao	6756			

Figure 35: SmartehCloud Dashboard Certificate Service page left section

When the Create Certificate is pressed a popup dialog is shown where the user must confirm its actions, it is similar when revoking the device certificate.

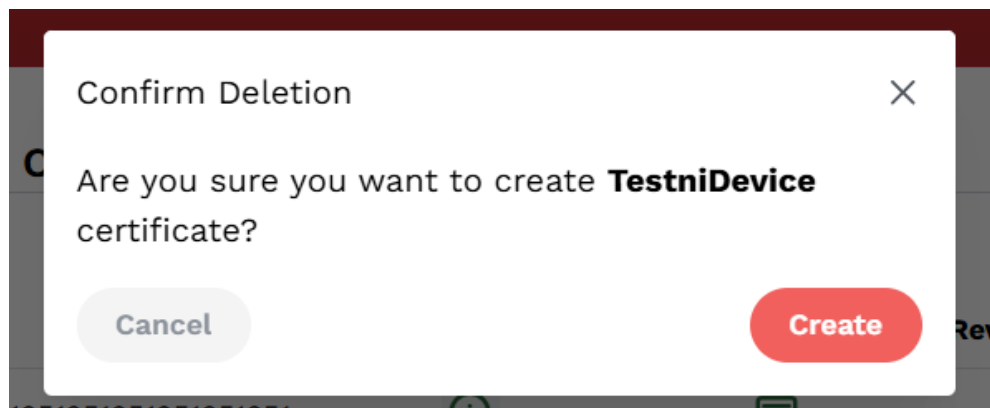


Figure 36: SmartehCloud Dashboard device certificate creation popup dialog

When the certificate is created a popup dialog with an option to download the created certificate (public and private part of the key) in .pem format is presented.

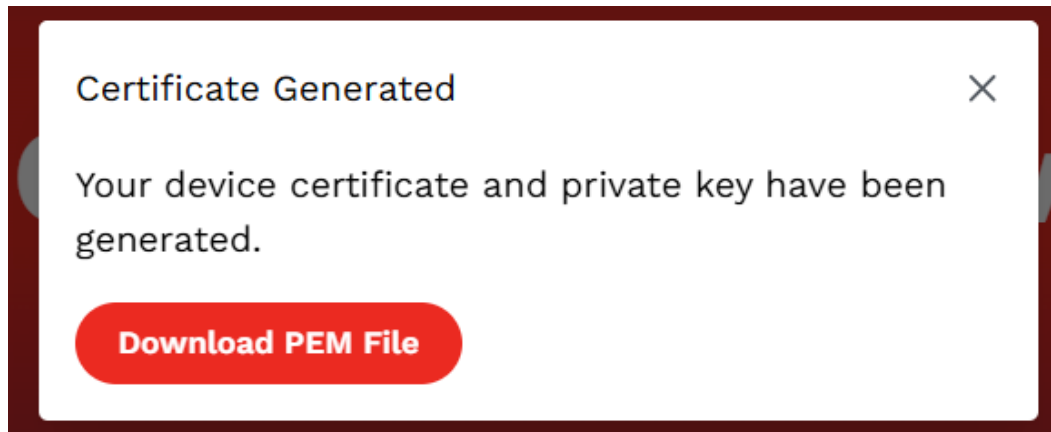


Figure 37: SmarteCloud Dashboard device certificate creation popup dialog

The certificate details for each device can be seen in a popup dialog when pressing the Current Certificate button on each of the corresponding devices.

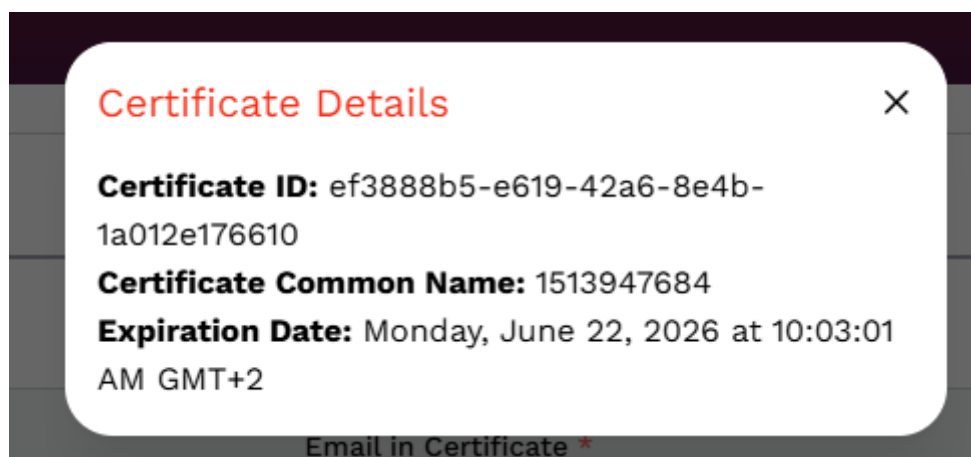


Figure 38: SmarteCloud Dashboard device certificate creation popup dialog

The user certificate creation and revocation procedure is identical to the device creation one. The only difference is that the certificate details: Email in the Certificate and expiration date are always shown in the details fields.



User Certificate Options

Email in Certificate *

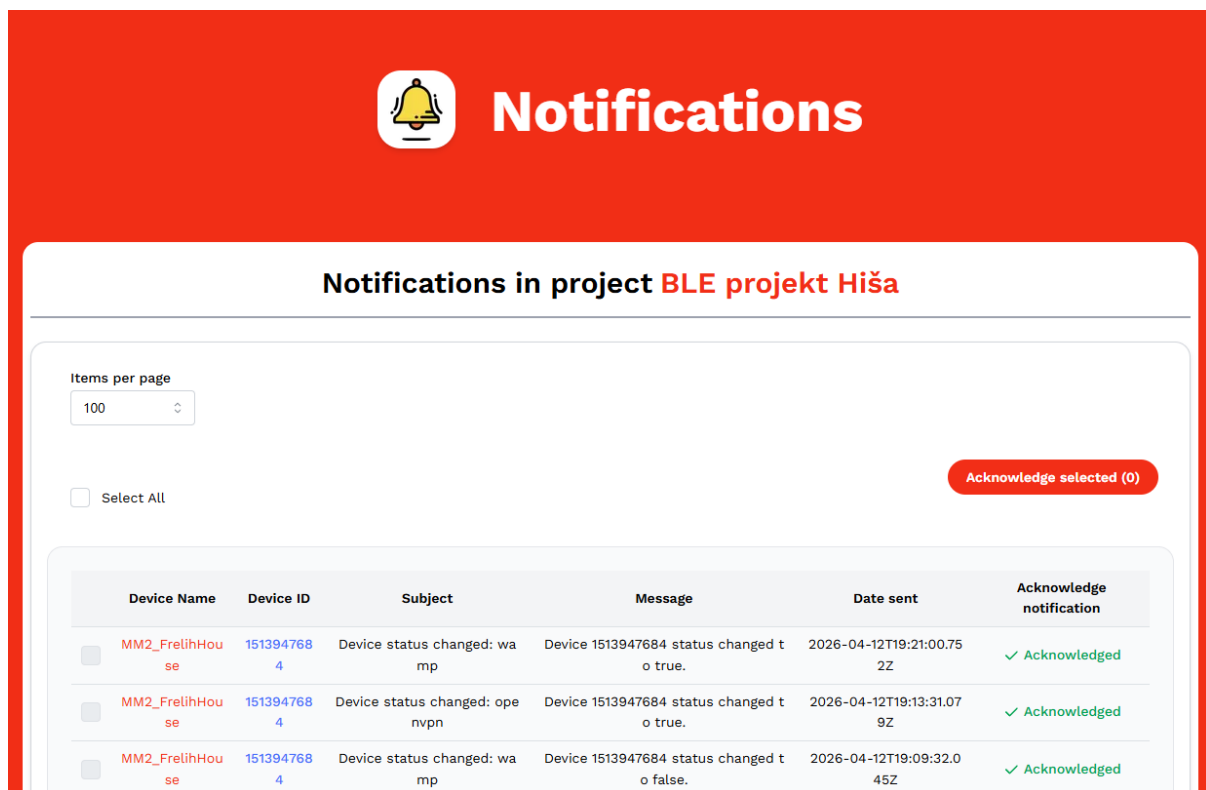
Valid Until *

Revoke Certificate

Figure 39: SmartehCloud Dashboard Certificate Service page right section

5.14 The Notifications page

The Notifications page displays a list of notifications that the user got for his project devices or for maintenance purposes. The user can inspect the name of the device that triggered the notification, its device ID, the subject of the message, the message content and also the date sent. The last item in each rows is the status of the notification if it has been acknowledged yet or not. With a button on top of the table the user can acknowledge the selected notifications. Only the users with a proper notifications role can use this service.



The screenshot shows the 'Notifications' page in the SmartehCloud dashboard. The page has a red header with a bell icon and the title 'Notifications'. Below the header, there's a sub-header 'Notifications in project BLE projekt Hiša'. The main content area includes a table of notifications. Above the table, there's a 'Select All' checkbox and an 'Acknowledge selected (0)' button. The table has columns for Device Name, Device ID, Subject, Message, Date sent, and Acknowledge notification. Three notifications are listed, all marked as 'Acknowledged'.

Device Name	Device ID	Subject	Message	Date sent	Acknowledge notification
MM2_FrelihHou se	151394768 4	Device status changed: wa mp	Device 1513947684 status changed t o true.	2026-04-12T19:21:00.75 2Z	✓ Acknowledged
MM2_FrelihHou se	151394768 4	Device status changed: ope nvpn	Device 1513947684 status changed t o true.	2026-04-12T19:13:31.07 9Z	✓ Acknowledged
MM2_FrelihHou se	151394768 4	Device status changed: wa mp	Device 1513947684 status changed t o false.	2026-04-12T19:09:32.0 45Z	✓ Acknowledged

Figure 40: SmartehCloud Notifications page

5.15 The Devices page

The Devices page displays a list of devices currently active in the project for the selected integrator. Furthermore if the user has admin role they also show all the integrator bound devices in the Integrator Devices tab otherwise only Project Devices tab is shown. If users have appropriate device creation role they can create new devices by clicking the "Create Device" button on the right, which takes them to the Create Device page. Users can also add devices to the project if they had been provisioned to our cloud services and have a valid SmartehCloud Unique ID attached to them during production process. To delete a device, users can click the "Delete Device" button, and the deletion must be confirmed in the popup that appears. By clicking on the Device Name, users can access the Update Device page, where they can view and modify the device details.

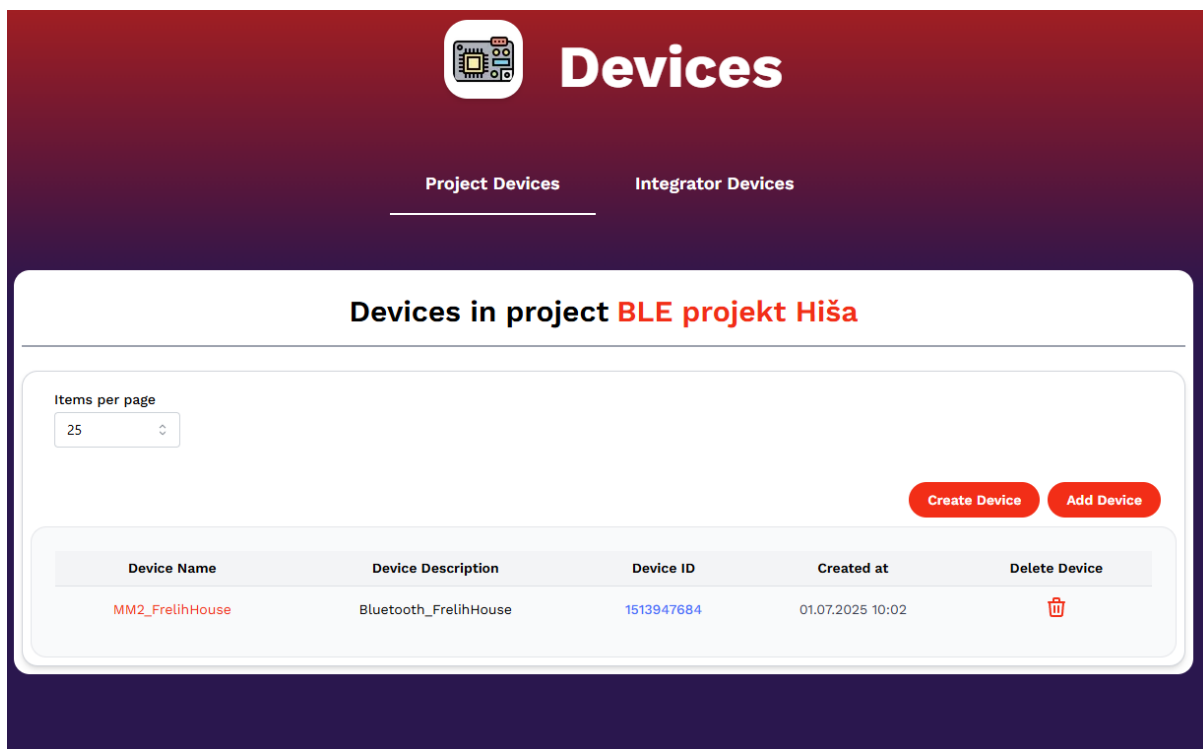


Figure 41: SmartehCloud Dashboard Devices

The Create Device page contains fields for device name, device Device ID and a brief description of the device.

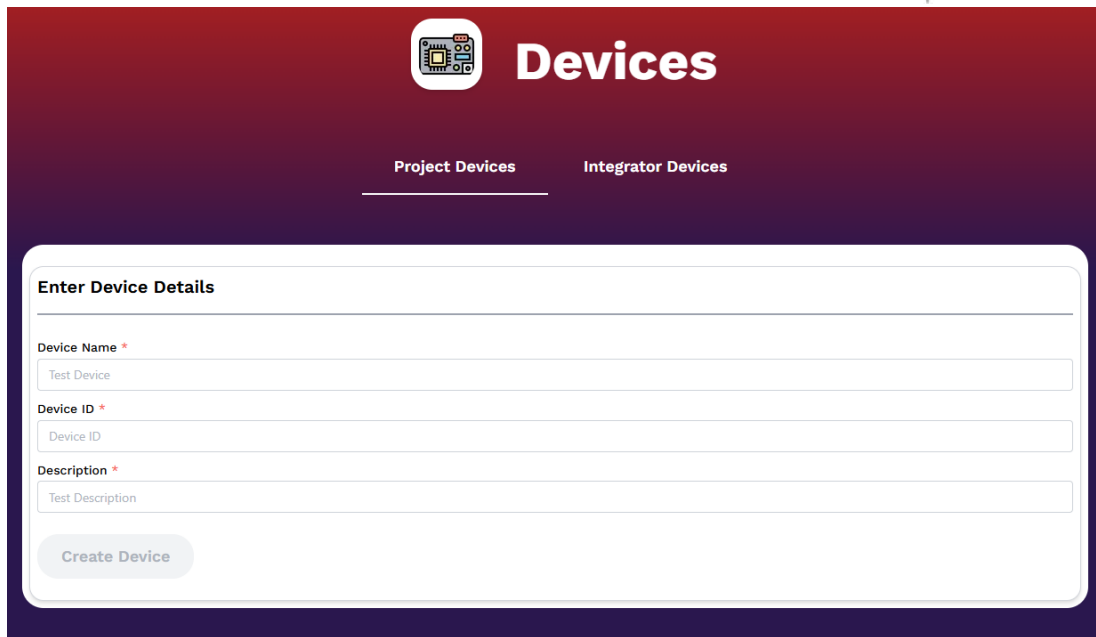


Figure 42: SmartehCloud Dashboard Create Device page

Here the Input fields are:

1. **Name** (Accepts device name, number of characters is not limited)
2. **Device ID** (Accepts device Device ID, exactly 10 characters)
3. **Description** (Accepts short device description text, number of characters is not limited)

The Add Device page contains only a field for Unique ID of the device which is a connection string unique to that device and calculated from its Device ID.

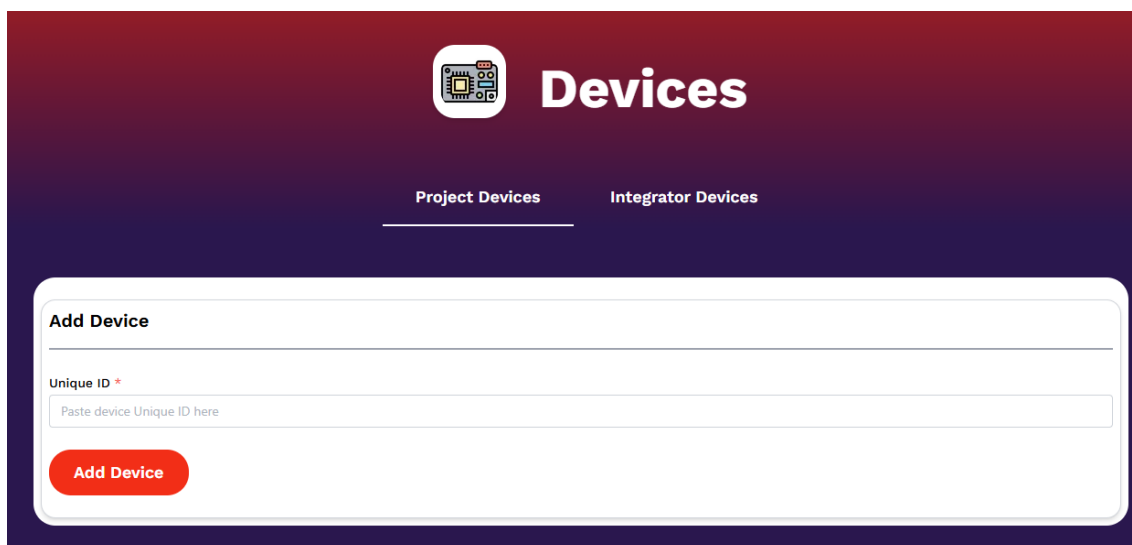


Figure 43: SmartehCloud Dashboard Add Device page





Here the Input fields are:

1. **Unique ID** (Accepts a connection string, number of characters is at least 51)

The Devices details page is used to update the details of each device if they are changed or they were entered incorrectly to begin with, the existing data is shown in the input fields.

Edit Device Details

Name *
MM2_FrelihHouse

Device ID *
1513947684

Description *
Bluetooth_FrelihHouse

Update Device

Figure 44: SmartehCloud Dashboard Device details page

Here the Input fields are the same as above:

1. **Name** (Accepts device name, number of characters is not limited)
2. **Device ID** (Accepts device Device ID, exactly 10 characters)
3. **Description** (Accepts short device description text, number of characters is not limited)

Furthermore Device details page has a section to change device's project to any other project inside same integrator.

Change Device Project

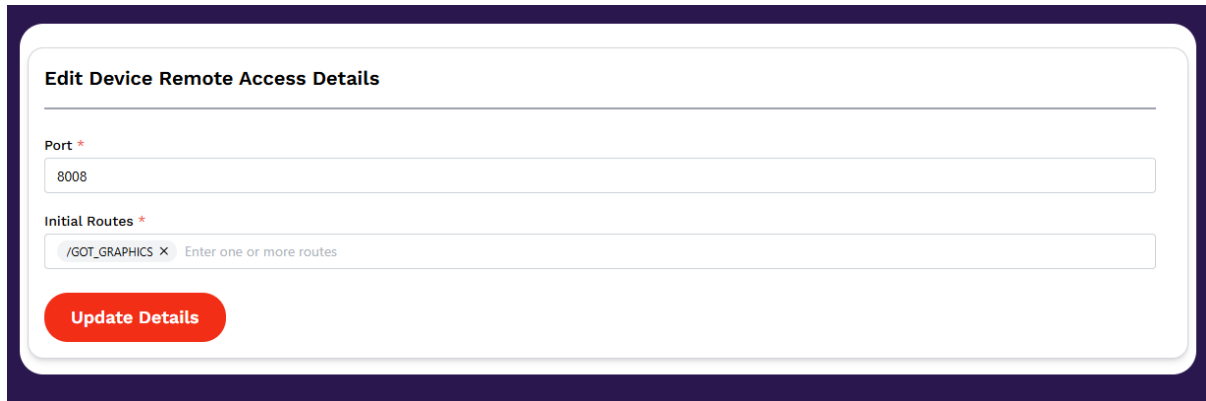
BLE projekt Hiša

Change Project

Figure 45: SmartehCloud Dashboard Change Device Project section



The next section on the Devices details is connected to the Remote Access service, where user can change the port of the Device Web application and initial route or base url.



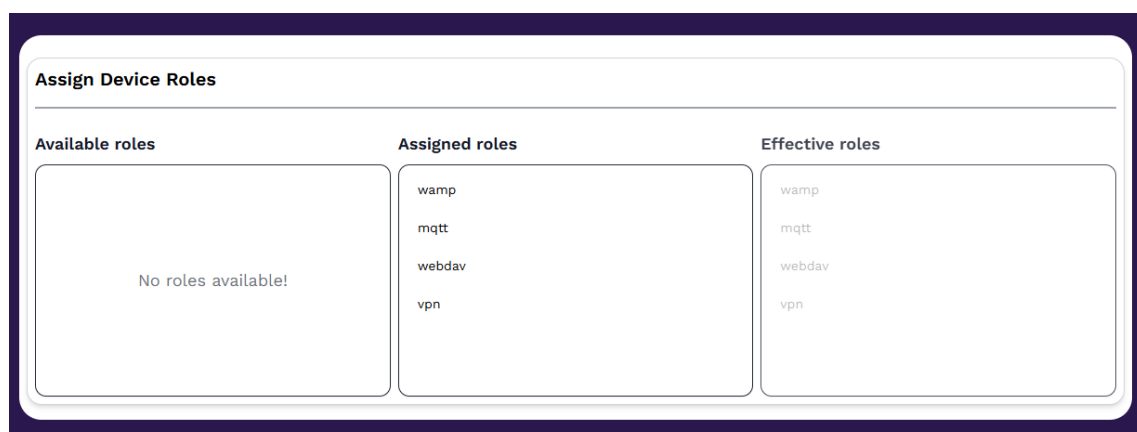
The form is titled "Edit Device Remote Access Details". It contains two input fields: "Port" with a red asterisk and a value of "8008", and "Initial Routes" with a red asterisk and a value of "/GOT_GRAPHICS". Below the input fields is a red button labeled "Update Details".

Figure 46: SmarteCloud Dashboard Device Remote Access settings

Here the Input fields are the same as above:

1. **Port** (Accepts port of the device application ranging from 0 to 65535)
2. **Initial Routes** (Accepts a list of valid base url strings starting with “/”)

The final section of Devices details page is the section where user can assign device roles. The roles allow devices to use certain services of our cloud application. User can with a press to the desired service change it from available to assigned roles, furthermore if a role has any connected role composites they all show in effective roles section.



The form is titled "Assign Device Roles". It contains three columns: "Available roles", "Assigned roles", and "Effective roles". The "Available roles" column is empty with the text "No roles available!". The "Assigned roles" column contains a list of roles: wamp, mqtt, webdav, and vpn. The "Effective roles" column contains a list of roles: wamp, mqtt, webdav, and vpn.

Figure 47: SmarteCloud Dashboard's Device Role settings

On the Integrator Devices page we have a list of devices bound to certain integrator, there an admin can add the device to a certain project or delete it.

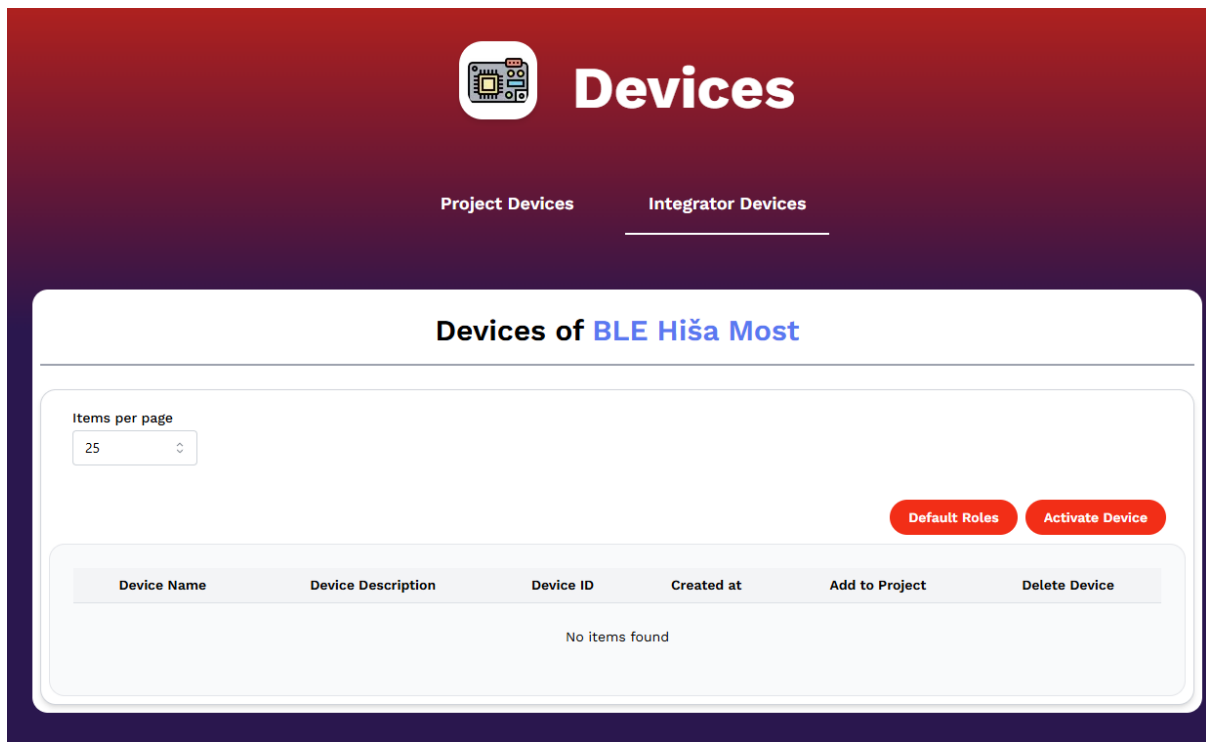


Figure 48: SmartehCloud Integrator Devices page

The default roles page lets admin user define what roles should his devices inherit when they are added to projects by default.

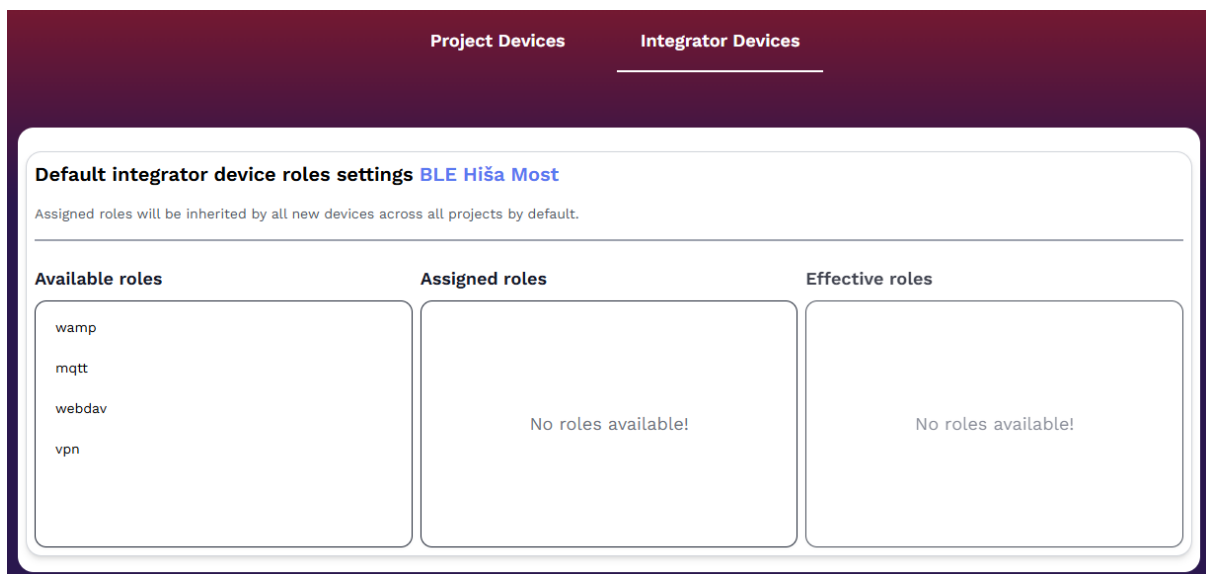
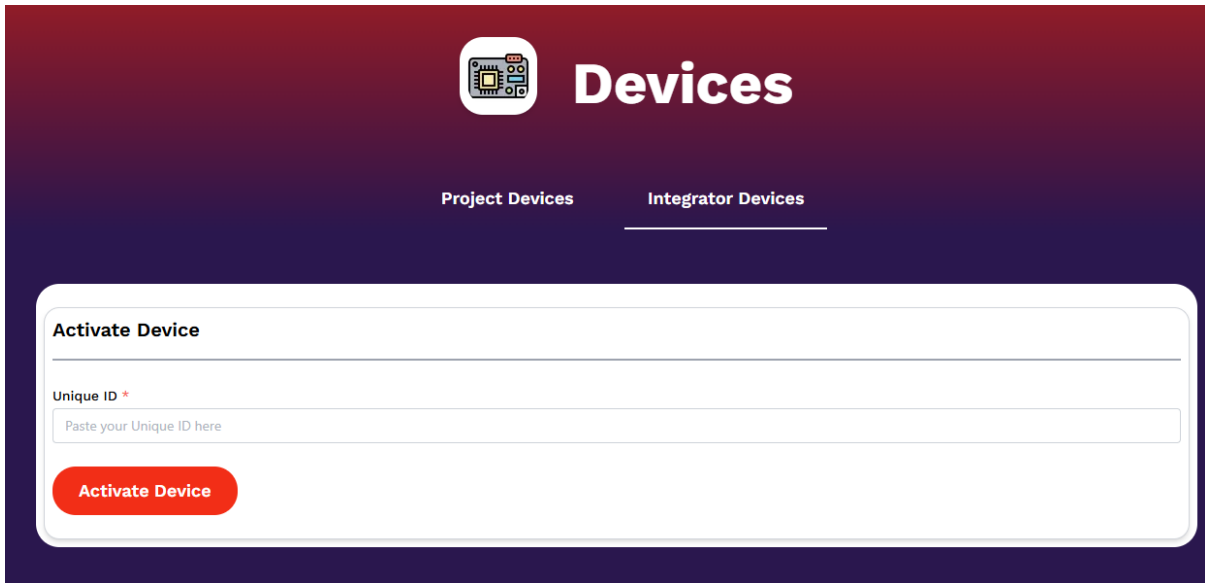


Figure 49: SmartehCloud Integrator Devices default roles



Last there is an Activate Device page where an admin user can activate the device and therefore bind it to its integrator.



The screenshot shows the 'Devices' section of the SmartehCloud dashboard. It features a dark blue header with a 'Devices' icon and title. Below the header, there are two tabs: 'Project Devices' and 'Integrator Devices', with the latter being selected. The main content area is a white box titled 'Activate Device'. It contains a 'Unique ID *' label, a text input field with the placeholder 'Paste your Unique ID here', and a red 'Activate Device' button.

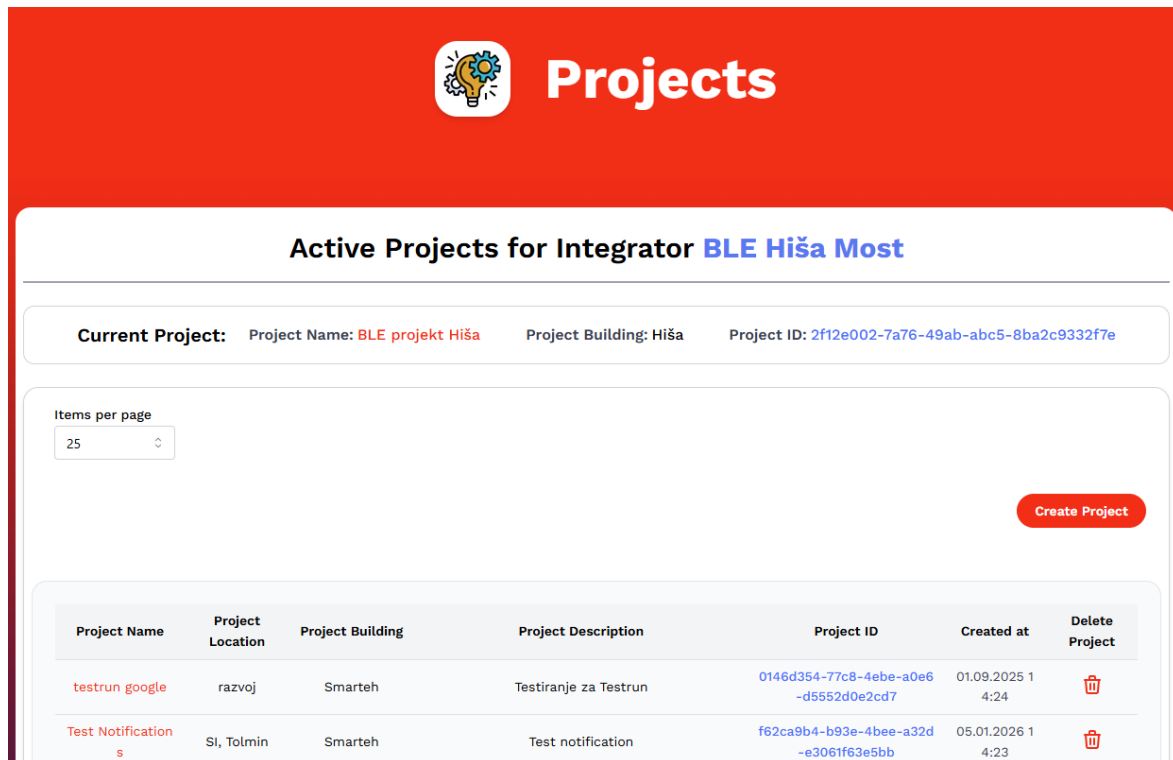
Figure 50: SmartehCloud Integrator Devices activate device page

Here the Input fields are:

1. **Unique ID** (Accepts a connection string, number of characters is at least 51)

5.16 The Projects Service page

The Project Management page allows users to view the current projects for the selected integrator. Users can create new projects by clicking the "Create Project" button on the right, which takes them to the Create Project page. To delete a project, users can click the "Delete Project" button next to each project. By clicking on the project name, users are taken to the Update Project page, where they can view and modify project details.



Projects

Active Projects for Integrator **BLE Hiša Most**

Current Project: Project Name: **BLE projekt Hiša** Project Building: **Hiša** Project ID: **2f12e002-7a76-49ab-abc5-8ba2c9332f7e**

Items per page: 25

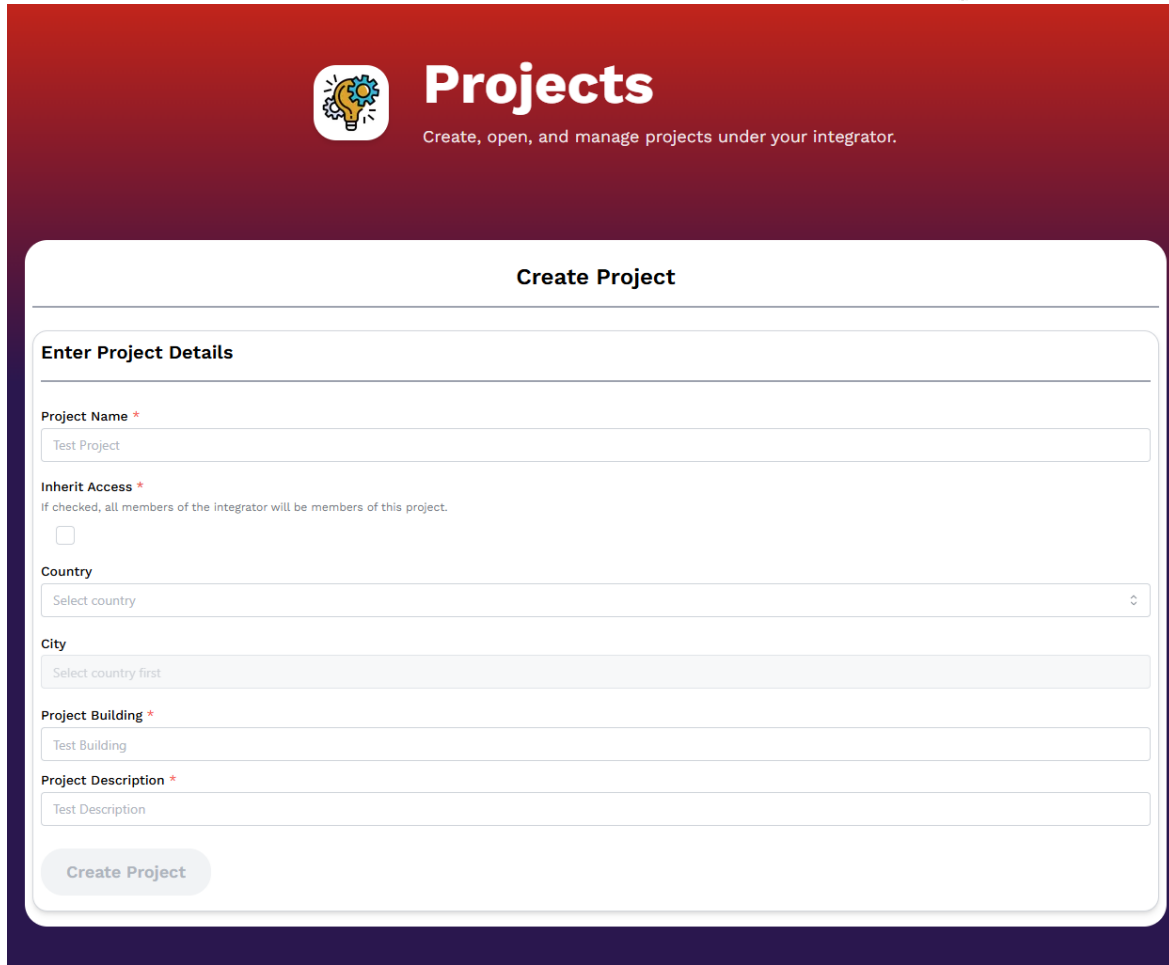
Create Project

Project Name	Project Location	Project Building	Project Description	Project ID	Created at	Delete Project
testrun google	razvoj	Smarteh	Testiranje za Testrun	0146d354-77c8-4ebe-a0e6-d5552d0e2cd7	01.09.2025 14:24	
Test Notifications	SI, Tolmin	Smarteh	Test notification	f62ca9b4-b93e-4bee-a32d-e3061f63e5bb	05.01.2026 14:23	

Figure 51: SmartehCloud Dashboard Project Management page

Each entry of the table shows details of the Project, from project name, location, building, description, copiable Project ID and information about creation date to Delete project button. Before the table there is also a row where currently selected project is displayed

The Create Projects page contains fields for Project Name, checkbox for Inherit Access, a dropdown for country and city selection, Building input field and also a field for a brief Description of the project.



Projects
Create, open, and manage projects under your integrator.

Create Project

Enter Project Details

Project Name *
Test Project

Inherit Access *
If checked, all members of the integrator will be members of this project.
☐

Country
Select country

City
Select country first

Project Building *
Test Building

Project Description *
Test Description

Create Project

Figure 52: SmartehCloud Dashboard's Create Project page

Here the Input fields are:

1. **Name** (Accepts project name, number of characters is not limited)
2. **Inherit Access** (checkbox to include or not include all the integrator members in project)
3. **Country** (Dropdown for selecting the country of the project)
4. **City** (Dropdown with typing options for city / place of the project.)
5. **Building** (Accepts short project building text, number of characters is not limited)
6. **Description** (Accepts short device description text, number of characters is not limited)

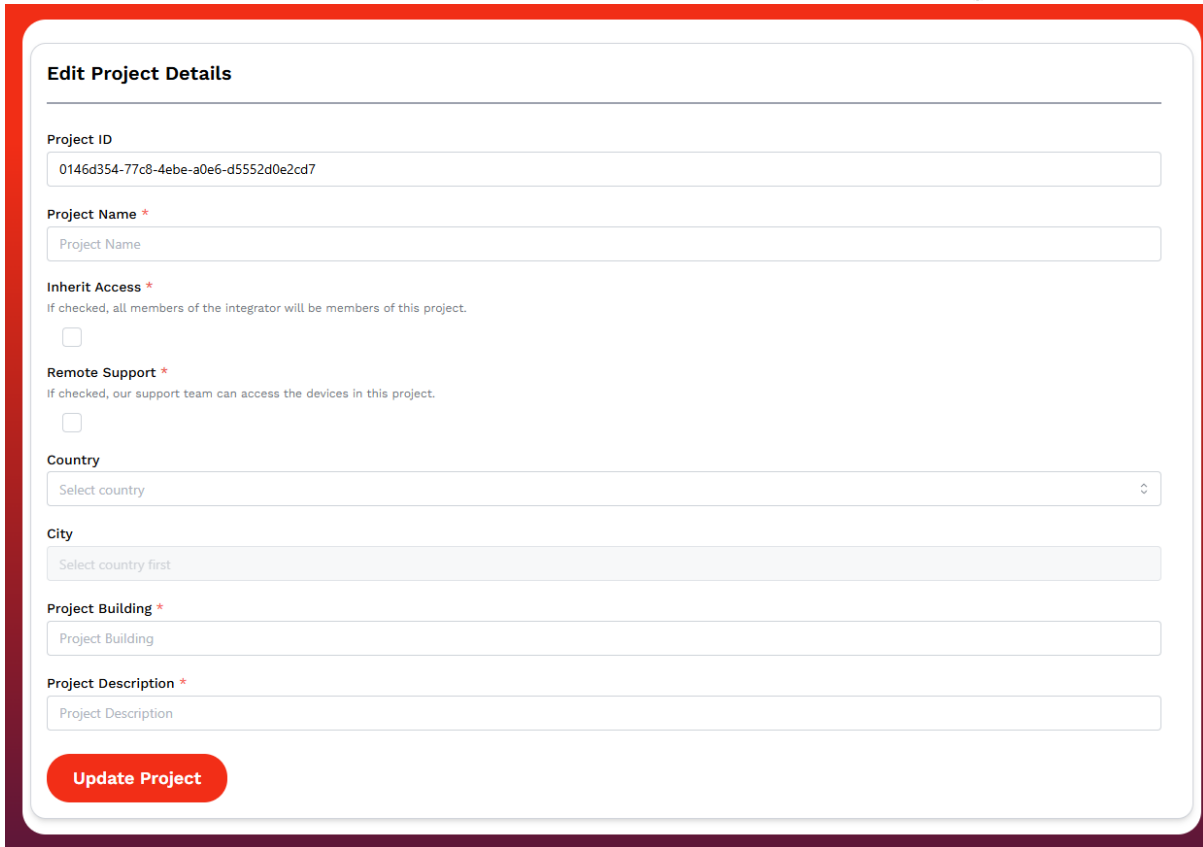


Figure 53: SmartehCloud Dashboard Update Project page

The Update Project page allows users to update project details. If "Inherit Access" is enabled, all members of the integrator are automatically added to the project. Otherwise, users must be added individually using the panel on the right. The added members are then displayed in the panel at the bottom of this page. All the fields have the existing details already present in them.

Here the Input fields are:

1. **Name** (Accepts project name, number of characters is not limited)
2. **Inherit Access** (checkbox to include or not include all the integrator members in project)
3. **Location** (Accepts short project location text, number of characters is not limited)
4. **Building** (Accepts short project building text, number of characters is not limited)
5. **Description** (Accepts short device description text, number of characters is not limited)
6. **Select Users** (dropdown for adding project members from integrator members list)

Edit Project Members

Select Users

Pick users

Add Members

Active Project Members

Items per page

25

Email	First name	Last name	Remove member	Created at
mihainteg@local.com	PraviJaša :D	Frelj Črv		23.12.2024 00:15
branko.sovdat@smarteh.si	Branko	Sovdat		13.05.2025 09:41

Figure 54: SmartehCloud Dashboard Update page members list

The next section takes user to a Project file publish page, where an admin user can publish new project files and therefore inform his members that a new update to their devices software is pending.

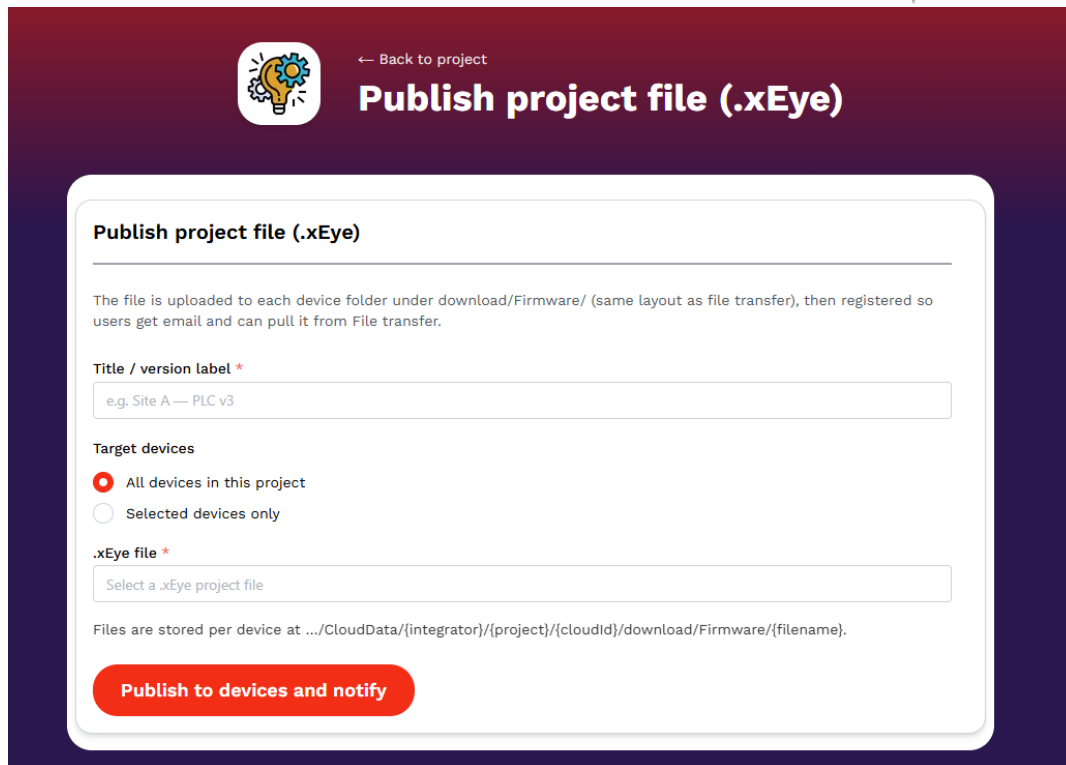
Project file publishing

Push a .xEye file to project devices (WebDAV /Firmware/) and notify members.

Open publish page

Figure 55: SmartehCloud Projects project file publish section

On the Publish project file page the admin can enter Title or version label of the new update, pick to which devices of project is this project update intended and then also a file picker for the project update file.



 [← Back to project](#)

Publish project file (.xEye)

Publish project file (.xEye)

The file is uploaded to each device folder under download/Firmware/ (same layout as file transfer), then registered so users get email and can pull it from File transfer.

Title / version label *

Target devices

☒ All devices in this project

☐ Selected devices only

.xEye file *

Files are stored per device at .../CloudData/{integrator}/{project}/{cloudId}/download/Firmware/{filename}.

Publish to devices and notify

Figure 56: SmartehCloud Projects Publish project file page

Here the Input fields are:

1. **Title / version label** (Accepts title or version label, number of characters is not limited)

The next section is for Notifications where users if he has notification role enabled can tweak his notification settings, notifications are then relayed to his email address. There are also specific settings for Device connection status or Integration or API events.

Notification Settings

Defaults apply to all notification types unless you enable overrides below. Similar emails are deduplicated; spacing is enforced per device and message pattern.

☒ Enable notifications

Minimum minutes between similar emails

After an email was sent, at least this many minutes must pass before another email with the same pattern can be sent.

Wait before sending (minutes)

When an event occurs, wait this long before the message becomes eligible to send (reduces noise from brief outages).

Per category overrides

Device connection status

MQTT, WAMP, and VPN service status changes reported by devices in this project.

☐ Use custom timing for device status emails

Integration / API events

Save Settings

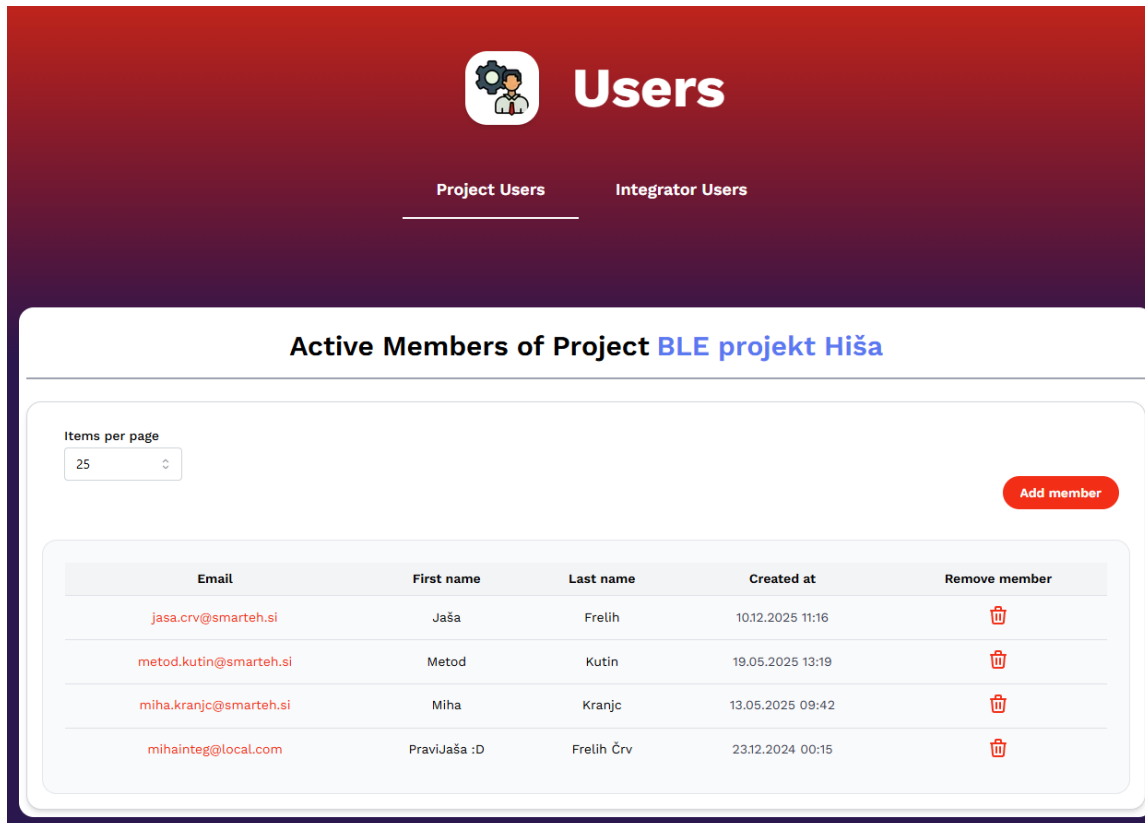
Figure 57: SmartehCloud Projects notifications settings

Here the Input fields are:

1. **Minimum minutes between similar emails** (Accepts a number in decimal format)
2. **Wait before sending (minutes)** (Accepts a number in decimal format)

5.17 The Users page

The Users page is limited to admin users, they display a list of users of the selected project and also the users of the selected integrator, along with their details. Users email, first name, last name and creation date is displayed and the member can also be deleted from the project.



Email	First name	Last name	Created at	Remove member
jasa.crv@smarte.si	Jaša	Frelj	10.12.2025 11:16	
metod.kutin@smarte.si	Metod	Kutin	19.05.2025 13:19	
miha.kranjc@smarte.si	Miha	Kranjc	13.05.2025 09:42	
mihainteg@local.com	PraviJaša :D	Frelj Črv	23.12.2024 00:15	

Figure 58: SmarteCloud Dashboard User Management page

User creation is restricted to the admin user or the user with appropriate role, normal users can add existing members to the project by email or name.

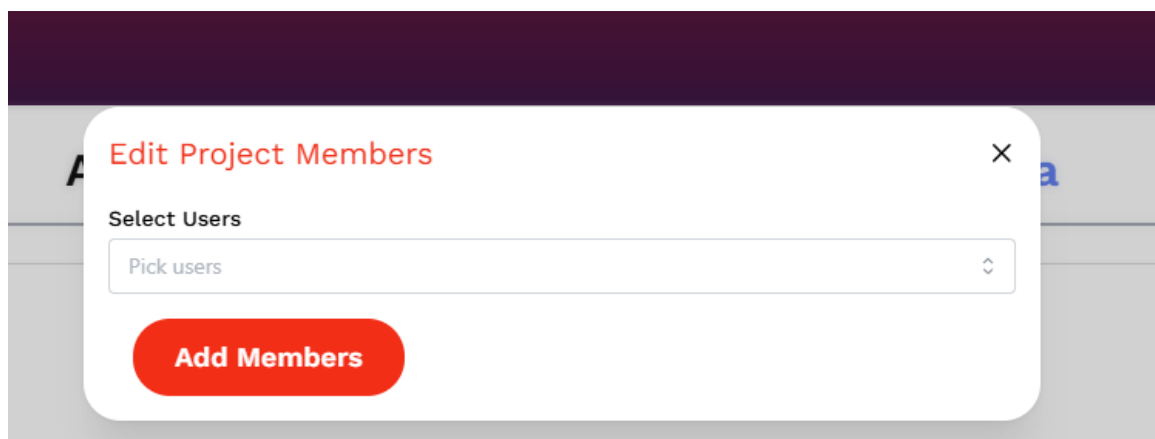
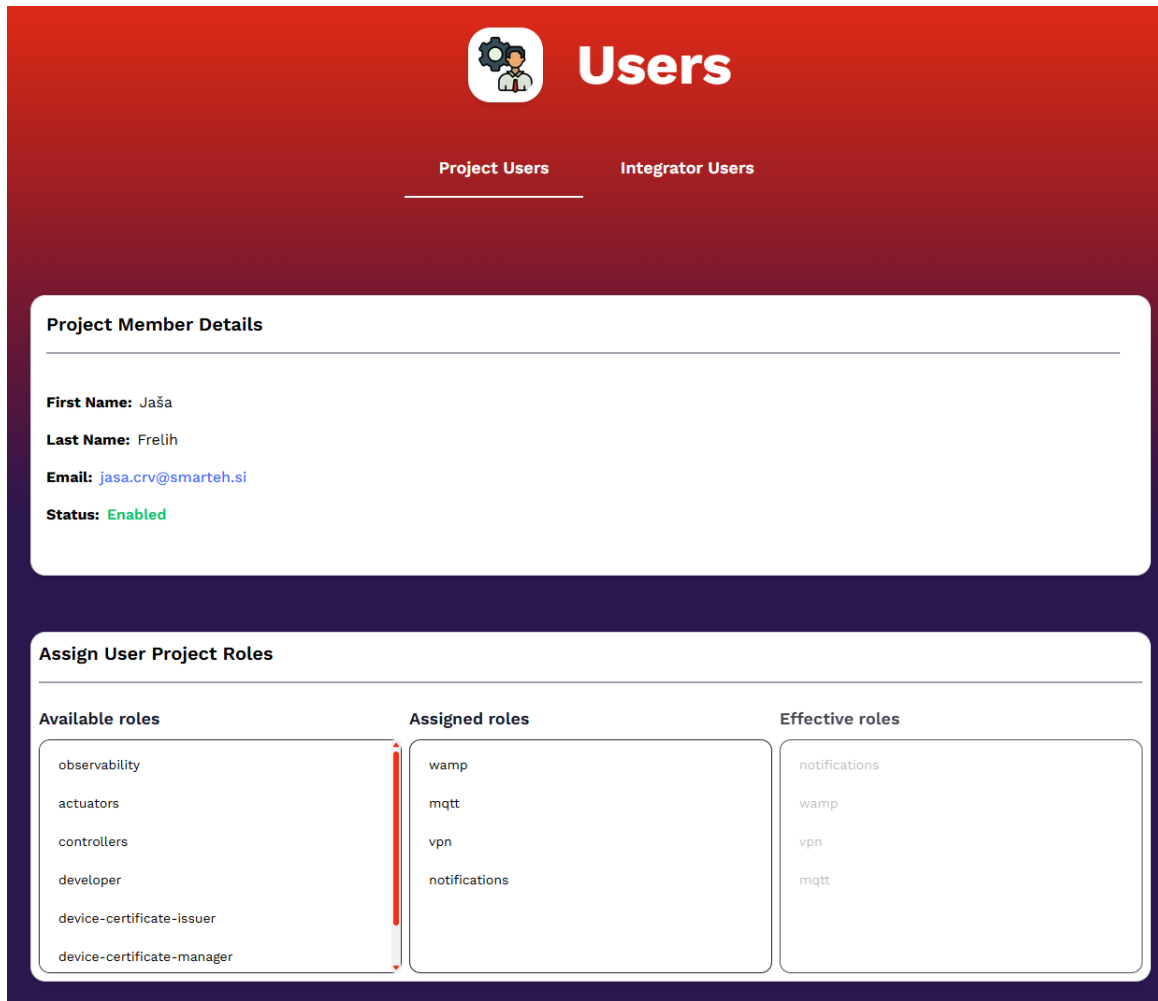


Figure 59: SmarteCloud Dashboard User add member popup

By clicking on a user's email, users are taken to the Users details page where User Project roles can be selected and assigned.



Users

Project Users Integrator Users

Project Member Details

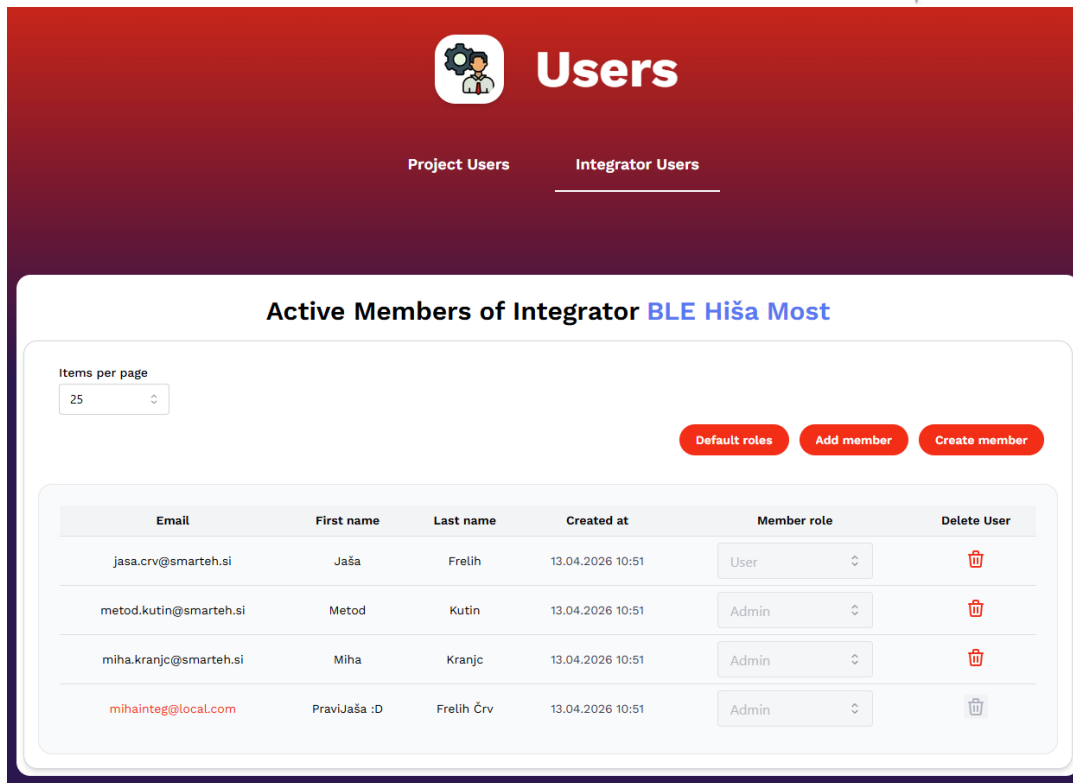
First Name: Jaša
Last Name: Frelj
Email: jasa.crv@smarteh.si
Status: Enabled

Assign User Project Roles

Available roles	Assigned roles	Effective roles
observability	wamp	notifications
actuators	mqtt	wamp
controllers	vpn	vpn
developer	notifications	mqtt
device-certificate-issuer		
device-certificate-manager		

Figure 60: SmartehCloud Dashboard Users Project details page

On the Integrator Users tab the admin can inspect also the users that are bound to the selected integrator. If the admin has sufficient role privileges it can also update the role of the member. By clicking on his email that is colored in red the admin can also inspect his user details and roles.



Users

Project Users Integrator Users

Active Members of Integrator BLE Hiša Most

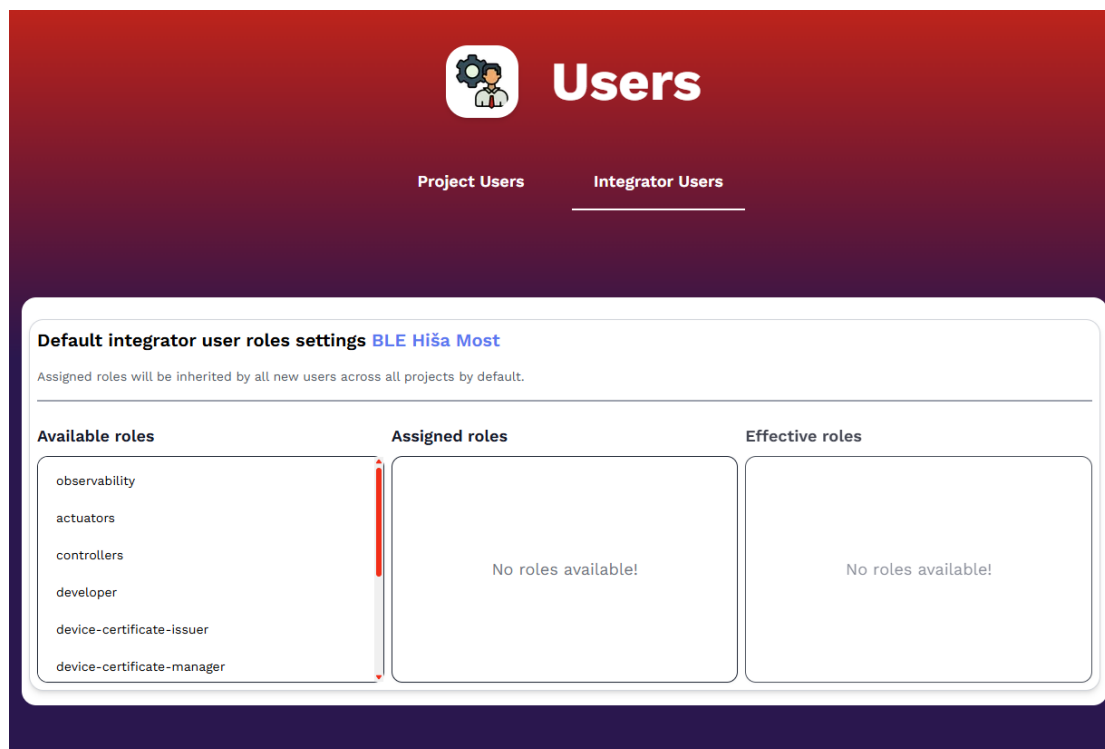
Items per page: 25

Default roles Add member Create member

Email	First name	Last name	Created at	Member role	Delete User
jasa.crv@smarte.si	Jaša	Frelj	13.04.2026 10:51	User	
metod.kutin@smarte.si	Metod	Kutin	13.04.2026 10:51	Admin	
miha.kranjc@smarte.si	Miha	Kranjc	13.04.2026 10:51	Admin	
mihainteg@local.com	PraviJaša :D	Frelj Črv	13.04.2026 10:51	Admin	

Figure 61: SmartehCloud Dashboard Users Integrator Users tab

By clicking on Default roles button admin can specify default roles for the users that are bound to his integrator.



Users

Project Users Integrator Users

Default integrator user roles settings BLE Hiša Most

Assigned roles will be inherited by all new users across all projects by default.

Available roles	Assigned roles	Effective roles
- observability - actuators - controllers - developer - device-certificate-issuer - device-certificate-manager	No roles available!	No roles available!

Figure 62: SmartehCloud Dashboard Users Default roles





To add a member to the integrator that already has an existing SmartehCloud account the admin can click on Add member button on Integrator Users tab. There he must input a valid user email and if he has sufficient role privilege he can also promote user to admin.

Figure 63: SmartehCloud Users Add Integrator Member page

Here the Input fields are:

1. **Email** (Accepts a valid user email address)

Admin user can also create a member to bind to his integrator on the create member page.

Figure 64: SmartehCloud Users Create Integrator member





Here the Input fields are:

1. **Email** (Accepts a valid user email address)
2. **First name** (User first name, number of characters is not limited)
3. **Last name** (User last name, number of characters is not limited)



5.18 The Alerts and Warnings pop ups

While using this application, users may encounter various types of warning, status, and alert pop-ups and messages.

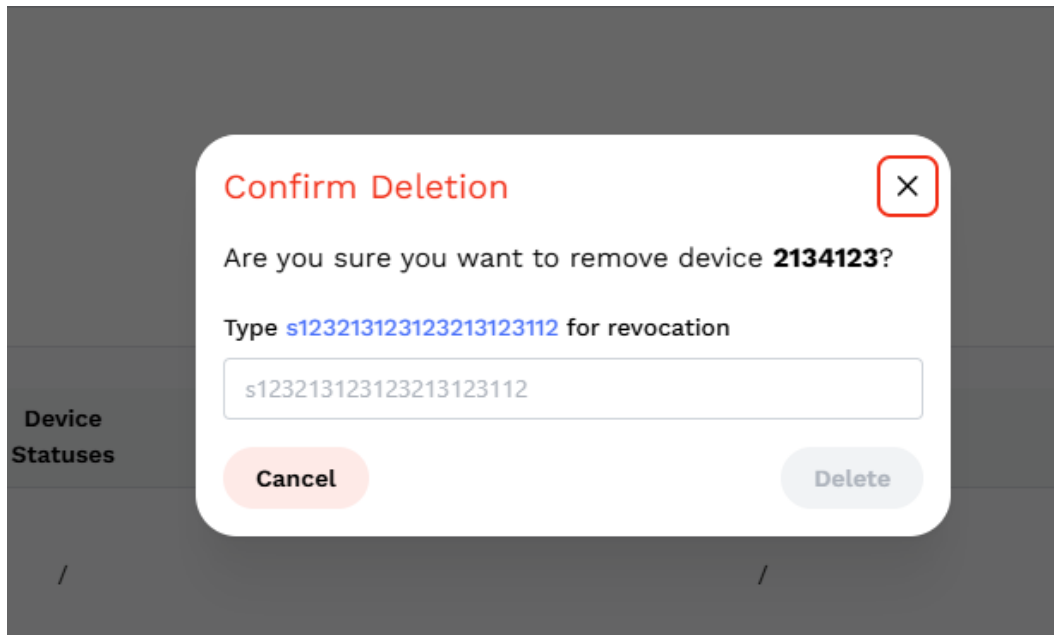


Figure 65: SmartehCloud Dashboard Popup Message

The popup messages, as shown in the figure above, are typically displayed to confirm if the user is certain they want to proceed with an action (such as deletion, updating, etc.).

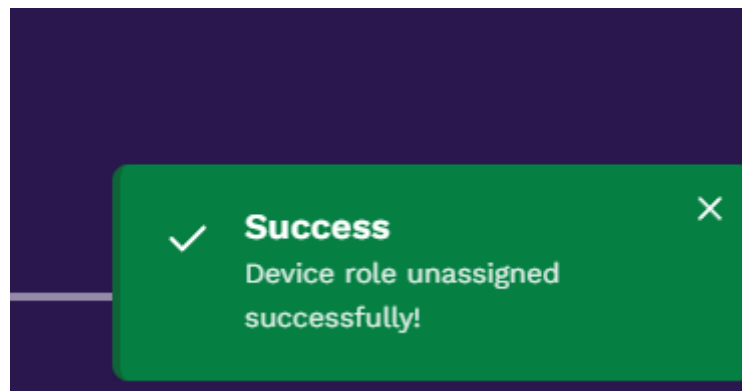


Figure 66: SmartehCloud Dashboard Notification

Notifications are displayed when a user action is completed successfully or unsuccessfully, informing the user of the outcome.

APPENDIX A - COMPATIBILITY

The SmarteCloud Dashboard has been tested on all modern web browsers and is fully compatible with them. Additionally, it has been tested on both iOS and Android native web browsers, ensuring compatibility across these platforms as well. It was also implemented to be a full PWA (Progressive Web App) supported application so users can download and use it on any platform.

APPENDIX B - ERROR REPORTING

For all the error reporting, please send an email with as much information about the error and possibly with screenshots to support@smarteh.si.

APPENDIX C - LICENSE

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SmartehCloud

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Website: <http://www.smarteh.com>

Tolmin, June 22, 2026



APPENDIX D - CHANGES

The Following table describes all the changes to the document.

Date	V.	Description
23.01.2025	1	The basic version, issued as SmartehCloud Dashboard - <i>User Manual</i> .
14.04.2026	2	The first reworked version.

