



Electron Salto Connector

USER MANUAL

Translation of the original instructions

Version: **1.0**

Date: **05/Nov/2025**

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VERSION	DATE	CHANGES
1.0	05/Nov/2025	-

Translation of the Original Instructions

Any information in this manual is subject to change without notice.

Exclusion of liability:

Despite checking that the contents of this document match the hardware and software, deviations cannot be completely excluded. We therefore cannot accept any liability for this.

Any necessary corrections will be incorporated into newer versions of this manual.

Symbol for relevant information 

Symbol for warning 

SALTO® is a registered trademark of its respective owner



1. Introduction to the user manual

This manual is intended for use by KNX installers and describes functions and parameters of the **Electron Salto Connector** and how the settings and configurations can be changed.

For the technical data of the device connected and the compatible accessories, please refer to the datasheet of the Electron device **IPSBA03KNX**.

This manual is the essential guide to using and managing the **Electron Salto Connector**, the cutting-edge software solution for access control.

2. Product overview

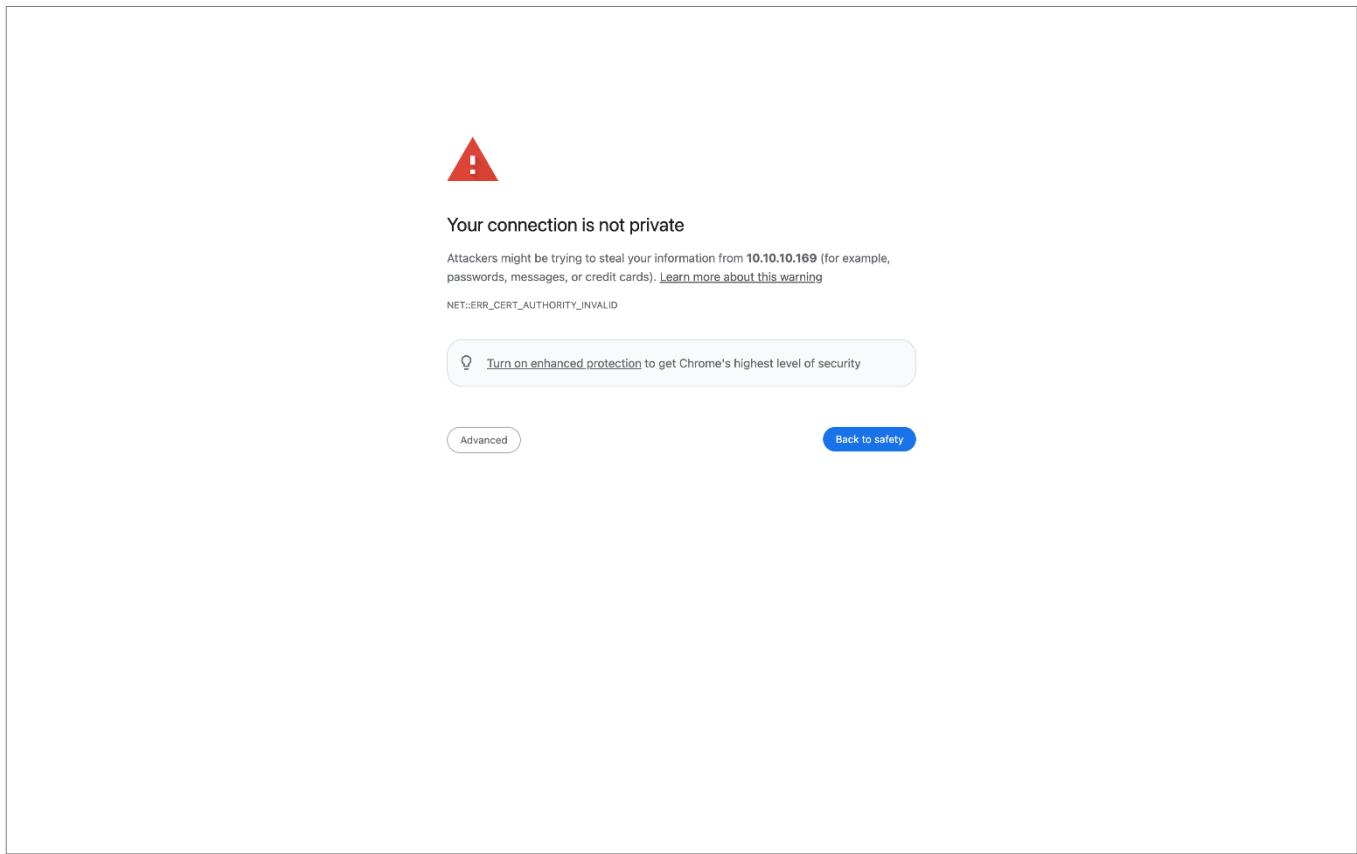
The **Electron Salto Connector** (simply referred to as **ESC**) is a powerful, flexible, and scalable on-premises middleware platform between the SALTO Space access control system and KNX networks, enabling seamless communication between electronic locks and building automation devices.

It allows real-time synchronization of status information and commands between SALTO system and KNX components via the IPSBA03KNX bridge, ensuring consistent and reliable system integration.

Before proceeding, it is recommended that you familiarize yourself with the functions of the SALTO system and ensure that all required hardware and software components have been correctly installed.

The purpose of this documentation is to provide system integrators and administrators with the clear, detailed instructions necessary to configure, monitor, and fully leverage all the powerful features offered by the **Electron Salto Connector**.

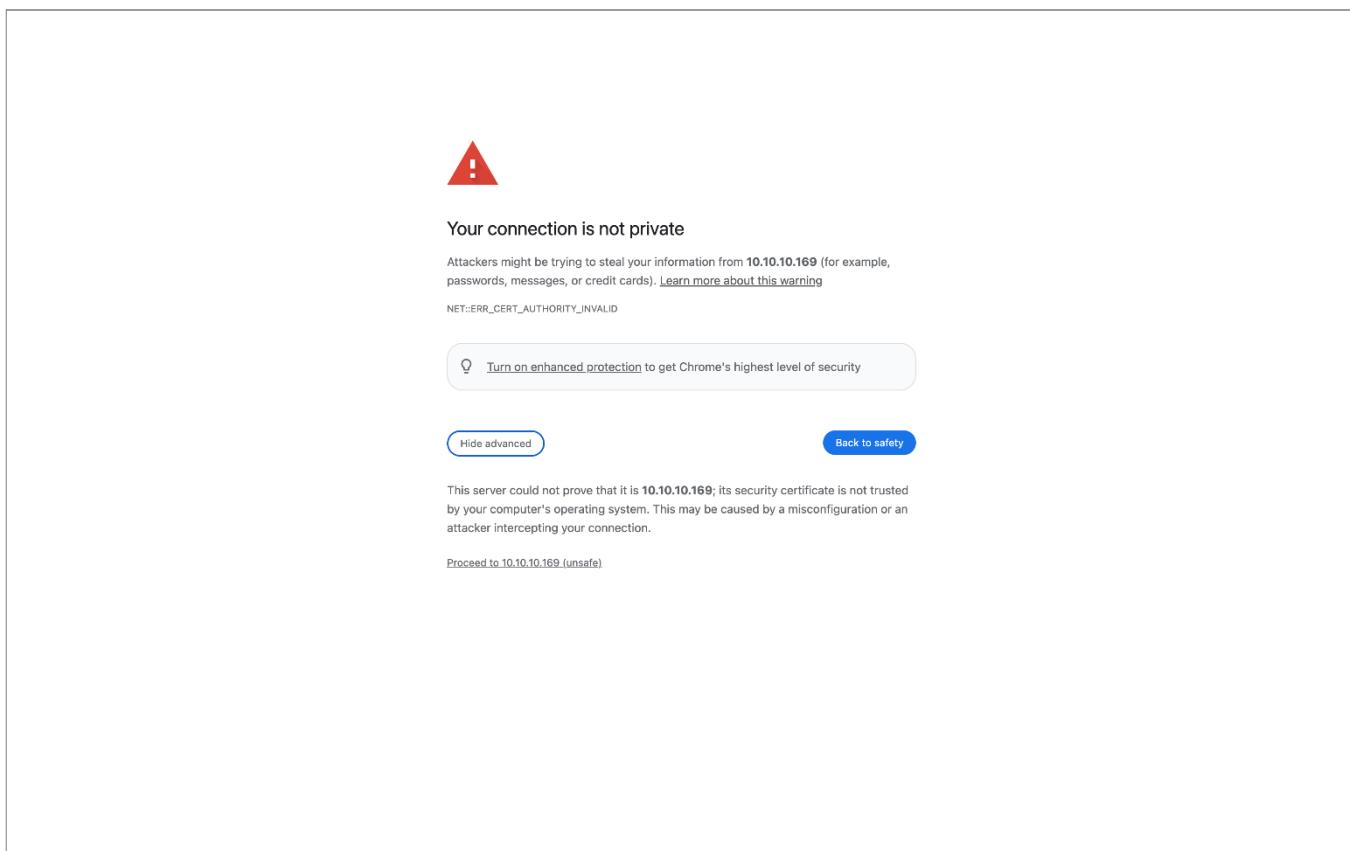
3. Configuration step-by-step



01

Step 01 - Access to the Electron Salto Connector Dashboard occurs through an HTTPS connection protected by the TLS protocol.

When the user connects to the dashboard for the first time, the browser will display a security prompt requesting confirmation to trust the certificate presented by the system.



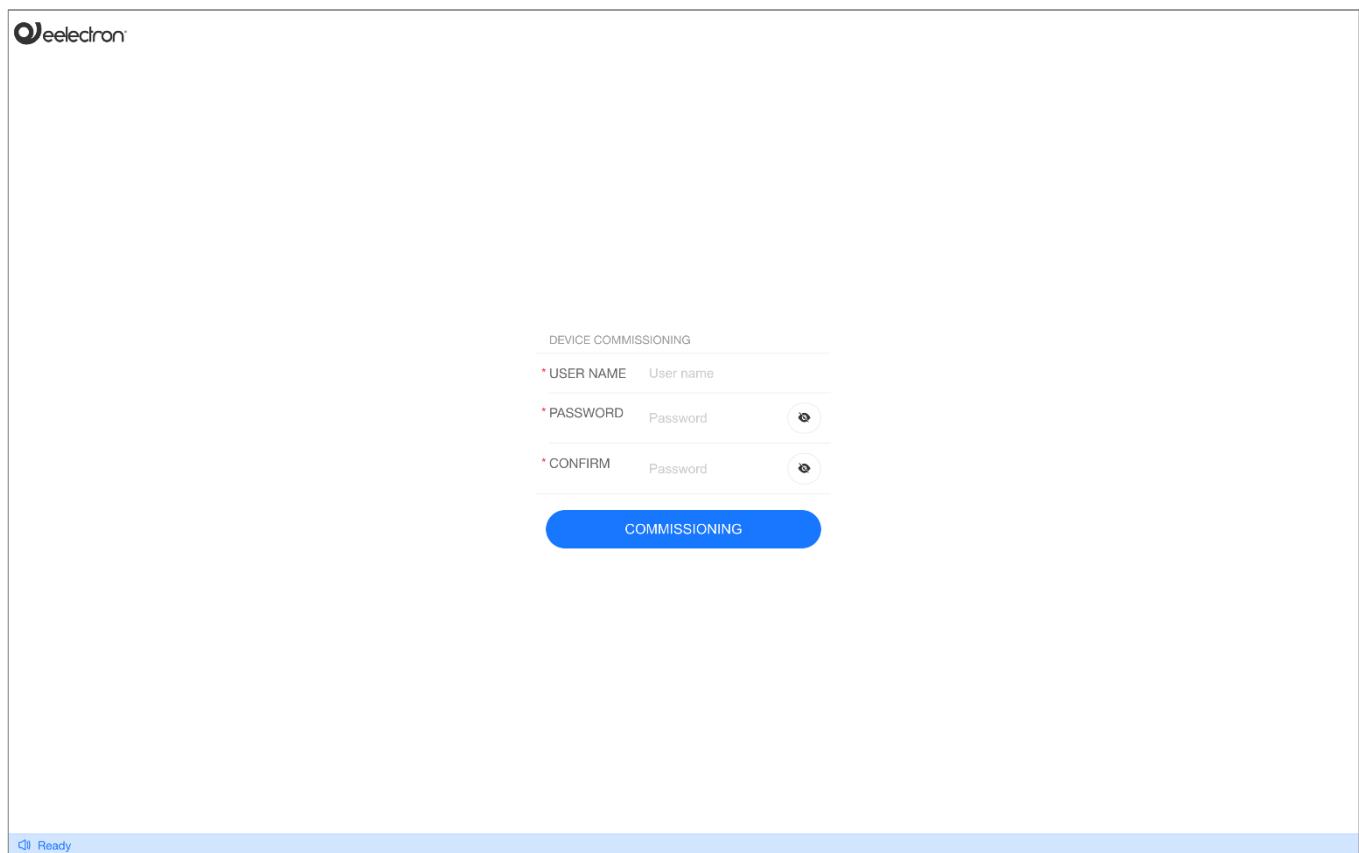
02

Step 02 - Because the certificate is issued by a private Electron Certification Authority, it is not automatically recognized by public browsers.

For this reason, the browser will ask the user to manually accept the certificate before granting access to the web interface.

For security reasons, the certificate is configured with a limited validity period.

This means that, when the certificate is automatically renewed or regenerated, the browser may request a new confirmation to trust the updated certificate.

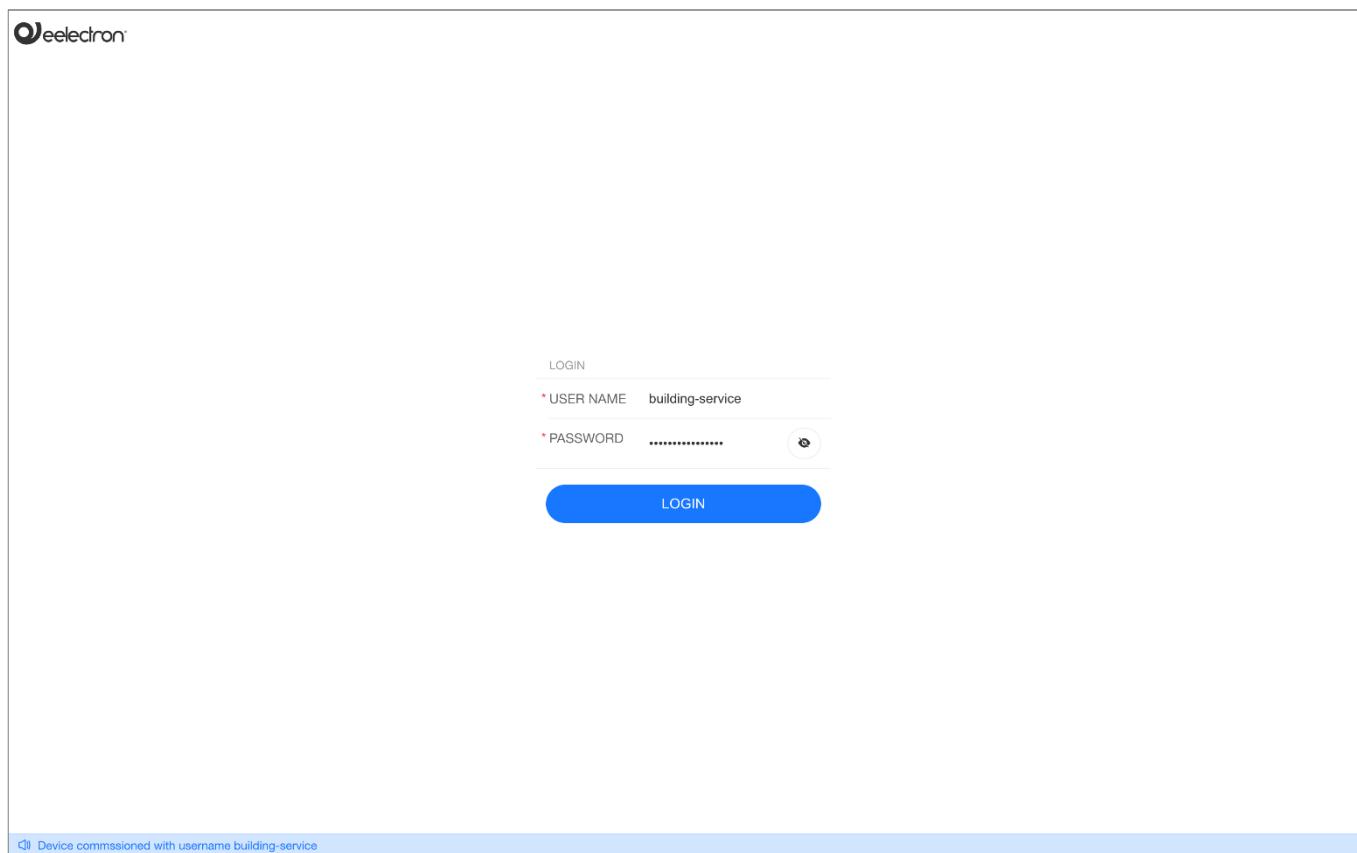


03

Step 03 - Initial Administrator Registration.

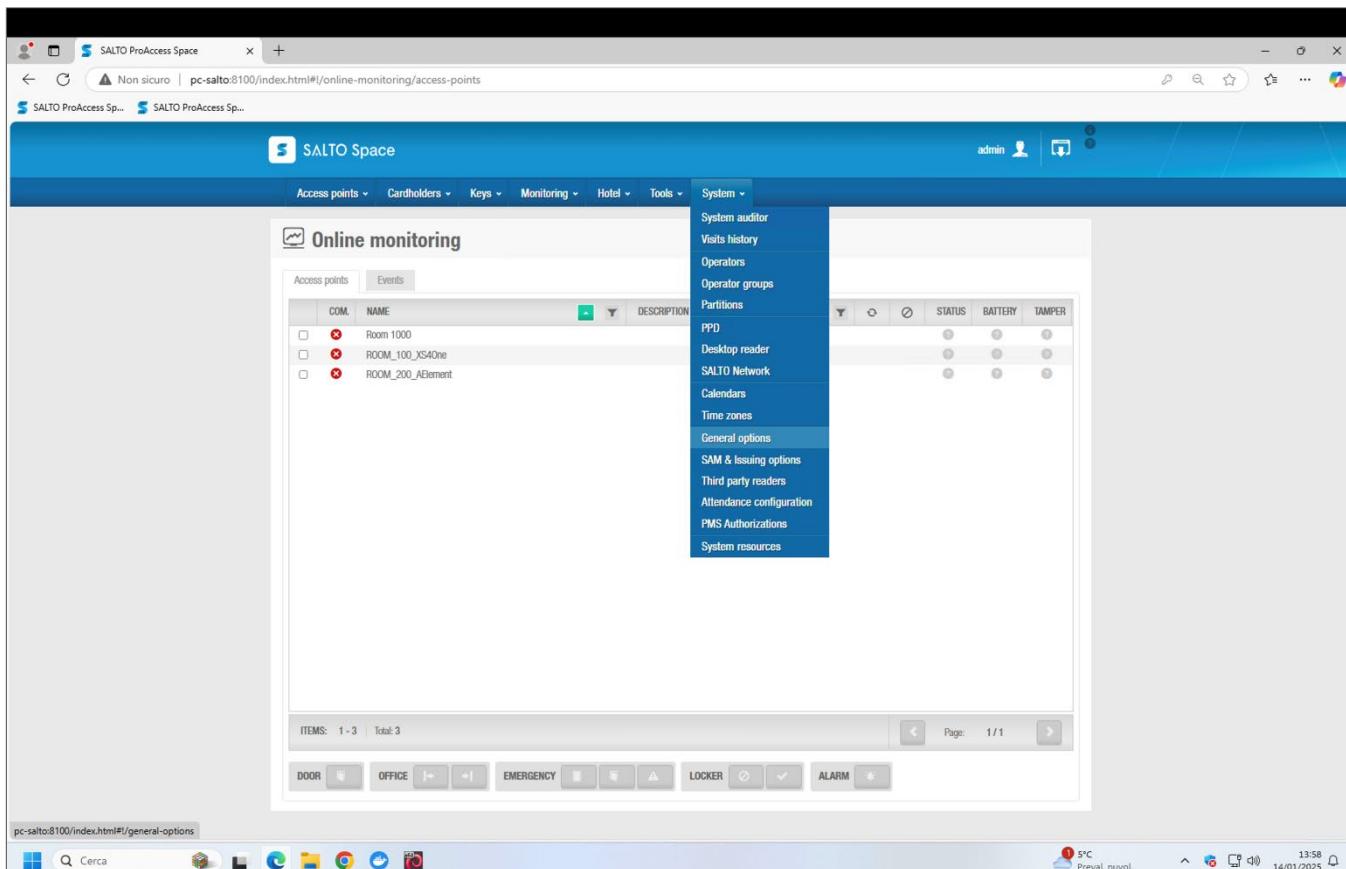
At the first system access, the platform will prompt the user to register an administrator account by specifying a username and password.

Once the registration is completed and confirmed, the administrator can log in to the dashboard using the newly created credentials.



04

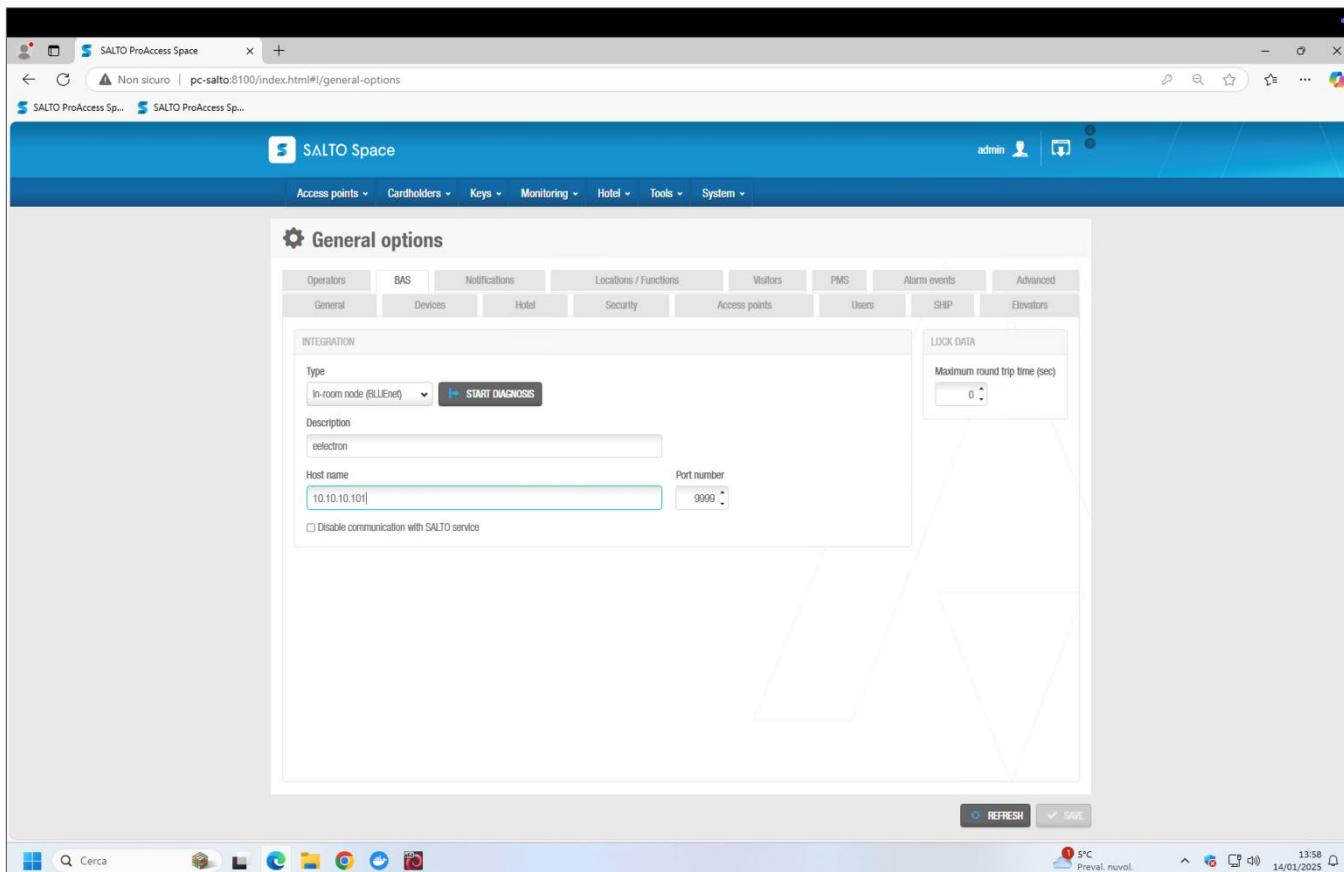
Step 04 - Once the registration is completed and confirmed, the system will automatically redirect to the login page. At this point, enter the newly created credentials to access the dashboard.



05

Step 05 - System Connection Configuration

As defined in the system architecture design, the Salto Space environment must be aware of the endpoint to which it should connect in order to synchronize data and exchange lock status information. To enable communication between the two systems, it is necessary to configure the IP address of the Electron Salto Connector within the dedicated configuration section.



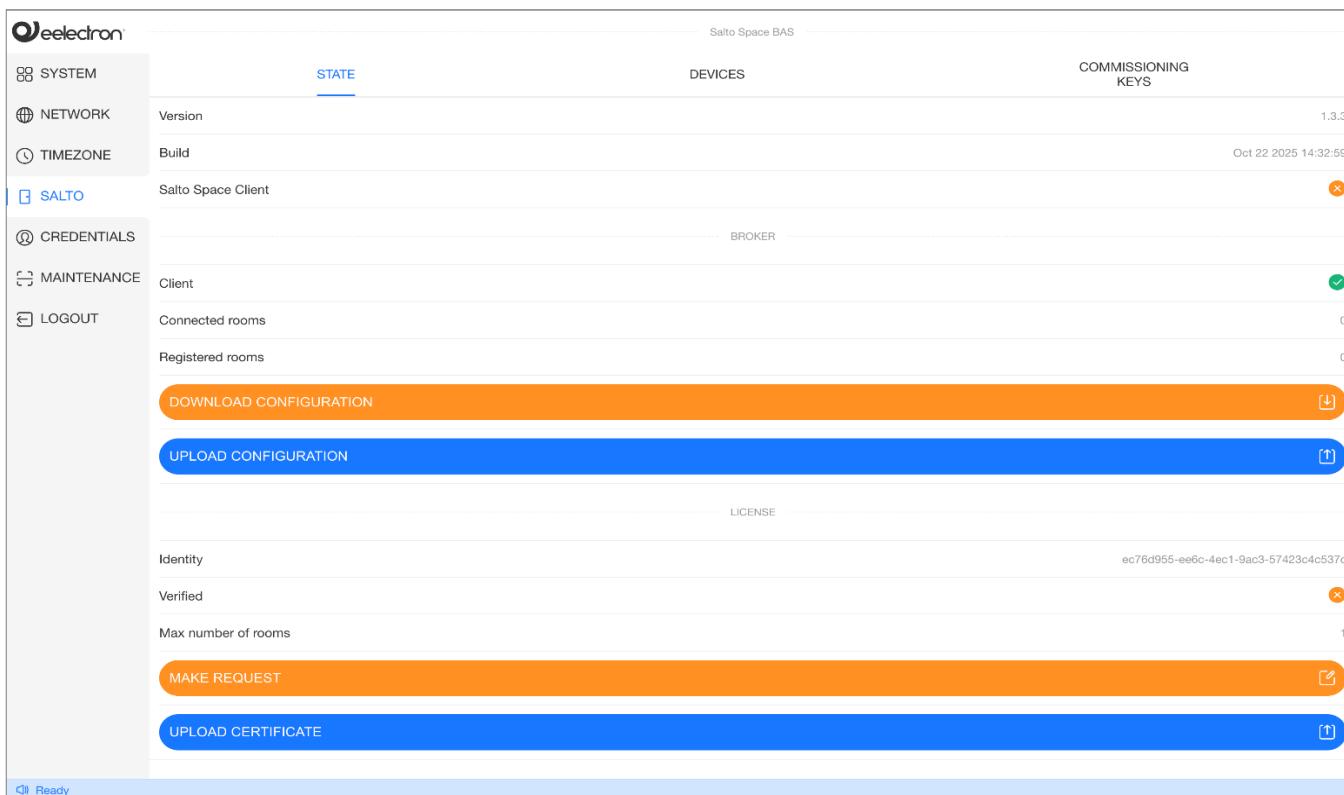
06

Step 06 - As defined in the system architecture design, the Salto Space environment must be aware of the endpoint to which it should connect in order to synchronize data and exchange lock status information. To enable communication between the two systems, it is necessary to configure the IP address of the Electron Salto Connector within the dedicated configuration section.

Important Notice:

The TCP port 9999 is a reserved and mandatory port dedicated to receiving client connections from Salto Space at Electron Salto Connector side.

This port must not be changed, as it is required for the proper operation of the synchronization and event communication process.



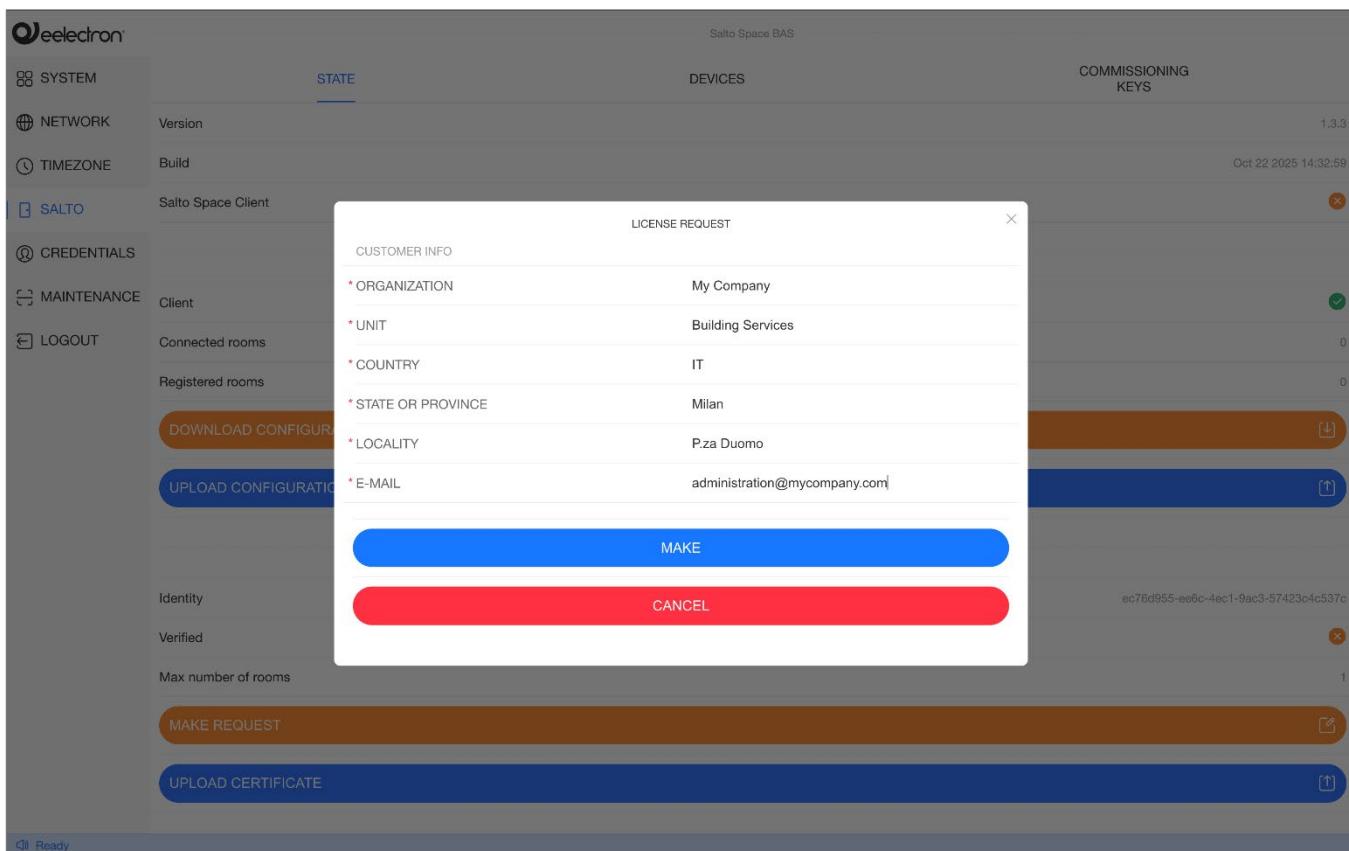
07

Step 07 - STATE Section Overview

The STATE section provides a synthetic overview of the system's current operating status. It summarizes all key runtime indicators related to software versioning, Salto Space connectivity, broker communication, and licensing.

GENERAL INFORMATION	
Parameter	Description
Version	<i>Indicates the current version of the installed module.</i>
Build	<i>Displays the compilation date and time of the running software build.</i>
Salto Space Client	<i>Shows whether the Salto Space system is currently connected to our platform.</i>
MESSAGE BROKER INFORMATION	
Parameter	Description
Client	<i>Indicates whether the main connection to the message broker is active.</i>
Connected Rooms	<i>Number of BRIDGEs connected to the broker after the enrollment phase.</i>
Registered Rooms	<i>Number of devices that have been successfully enrolled and registered in the system.</i>
DOWNLOAD / UPLOAD CONFIGURATION	
Once the commissioning phase is completed, it's possible download and upload the broker configuration. This functionality enables:	
<ul style="list-style-type: none"> - Rapid deployment on other installations - Backup and redundancy of configurations - Restoration of operational parameters in case of system replacement 	
LICENSE INFORMATION	
Parameter	Description
Identity	<i>Displays the unique hardware identity of the machine.</i>
Verified	<i>Indicates whether the license has been correctly validated.</i>
Max. Number of Rooms	<i>Defines the maximum number of rooms that can be managed under the current license.</i>

 If the product isn't registered yet, the system will only allow synchronization and operation of one single room registered in Salto Space



08

Steps 08 / 09 / 10 - Product Licensing Procedure

To license the product, it is necessary to create a license request directly from the dashboard interface. This process is initiated by clicking the “MAKE REQUEST” button located in the License section. Once clicked, the system will prompt for several fields that identify the organization and installation environment.

Confirm the request:

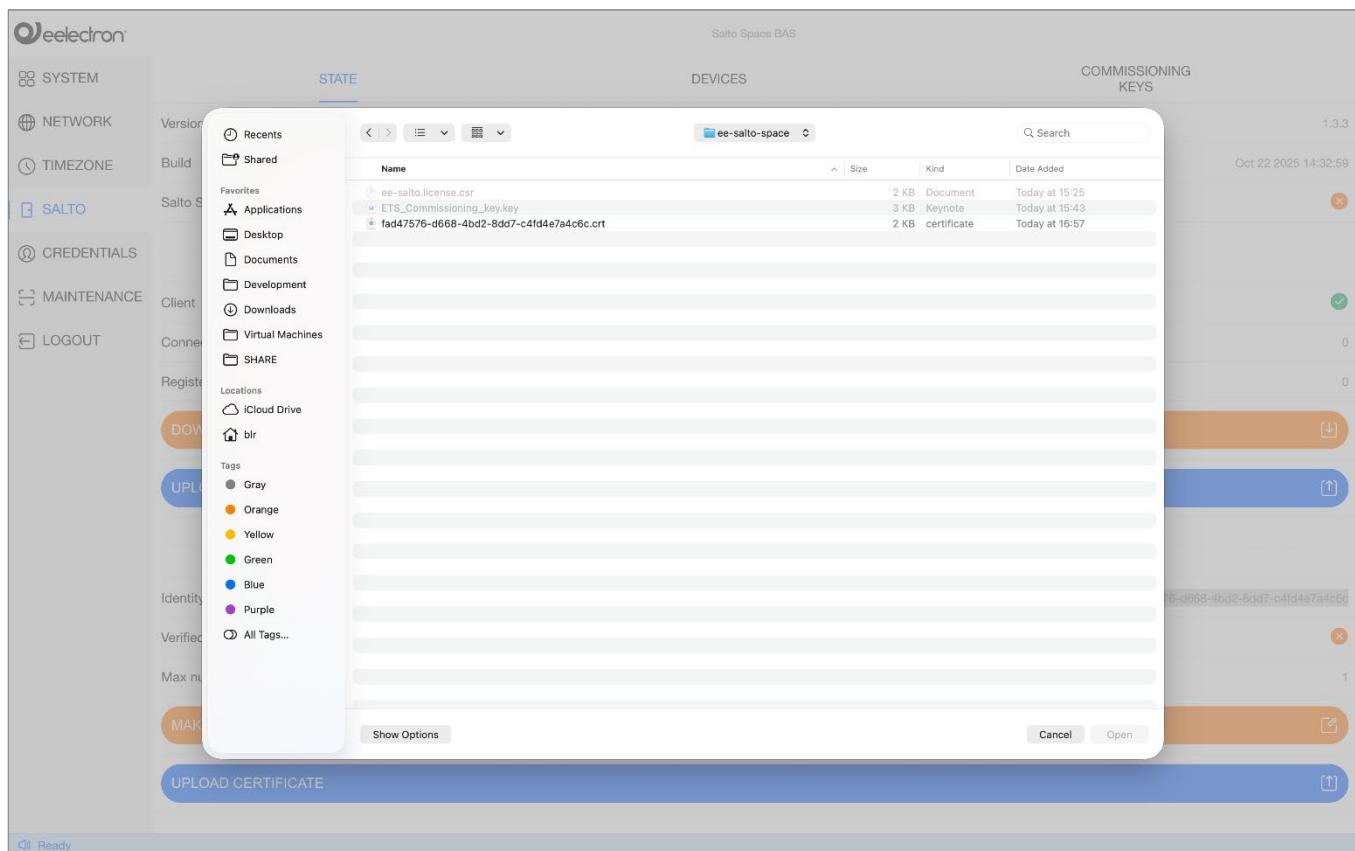
the system will generate a license request `ee-salto.license.csr` file.

Send the generated file to the license provider for validation and activation at the following email address (sales@eelectron.com) specifying the number of rooms you intend to manage.

The screenshot shows the Oeelectron interface with the following details:

- Left Sidebar:** Includes sections for SYSTEM, NETWORK, TIMEZONE, SALTO, CREDENTIALS, MAINTENANCE, and LOGOUT.
- Top Header:** Shows the device name "Salto Space BAS" and the version "1.3.3".
- Central Area:** A modal window titled "ee-salto-space" is open, showing a file named "ee-salto.license.csr". The modal includes a "Save As:" field, a "Tags:" field, and a "Search" bar. It also lists other files in the folder: "ee-salto-space" (selected), "ee-salto-space.license.csr", "ee-salto-space.license.csr", and "ee-salto-space.license.csr".
- Bottom Buttons:** Includes "MAKE REQUEST", "UPLOAD CERTIFICATE", and a "Ready" status indicator.

09



10

The screenshot shows the Qeelectron Salto Connector interface. The top navigation bar includes 'STATE', 'DEVICES', and 'COMMISSIONING KEYS'. The 'STATE' tab is active, showing the following details:

Category	Value	Details
SYSTEM	STATE	Salto Space BAS
NETWORK	Version	1.3.3
TIMEZONE	Build	Oct 22 2025 14:32:59
SALTO	Salto Space Client	✓
CREDENTIALS		
MAINTENANCE	Client	✓
LOGOUT	Connected rooms	0
	Registered rooms	3

Below the table are two large buttons: 'DOWNLOAD CONFIGURATION' (orange) and 'UPLOAD CONFIGURATION' (blue).

The 'LICENSE' section contains the following fields:

Field	Value
Identity	f30df38a-f184-4edb-a3f1-5be0aa81fa35
Verified	✓
Max number of rooms	5

Below the license section are two more buttons: 'MAKE REQUEST' (orange) and 'UPLOAD CERTIFICATE' (blue).

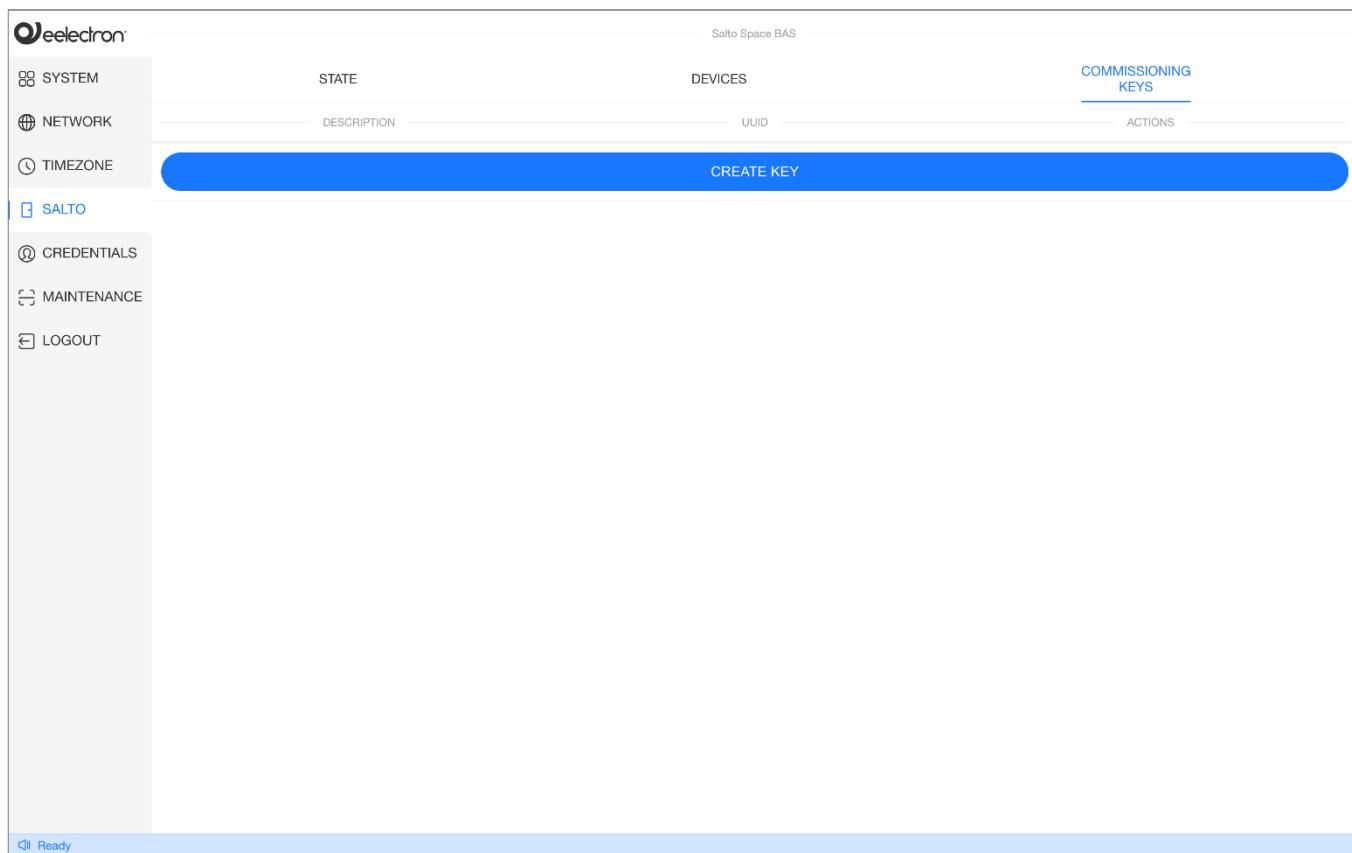
A status bar at the bottom left says 'Ready'.

11

Step 11 - After Request Submission

Once the license is validated, a license file will be returned.

You can then upload this file in the same License section to activate the system permanently by clicking the "UPLOAD CERTIFICATE" button located in the License section.

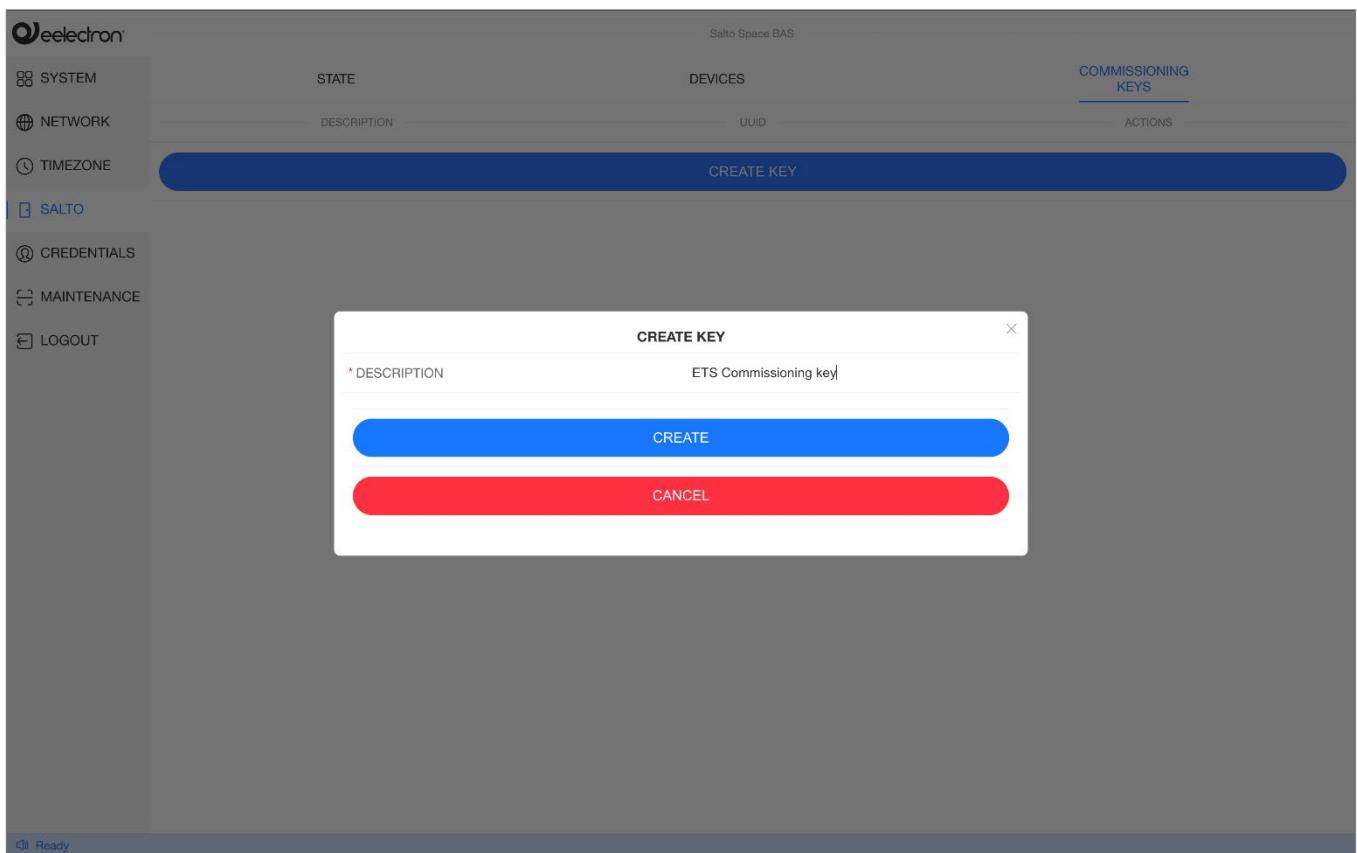


The screenshot shows a user interface for the Qeelectron Salto Connector. On the left is a vertical sidebar with icons for SYSTEM, NETWORK, TIMEZONE, SALTO, CREDENTIALS, MAINTENANCE, and LOGOUT. The main area is titled 'Salto Space BAS' and contains tabs for STATE, DEVICES, and COMMISSIONING KEYS. A large blue button labeled 'CREATE KEY' is prominently displayed. At the bottom of the interface, a blue bar indicates the system is 'Ready'.

12

Step 12 – Create Key

Once activated the system, click on “Create Key”.



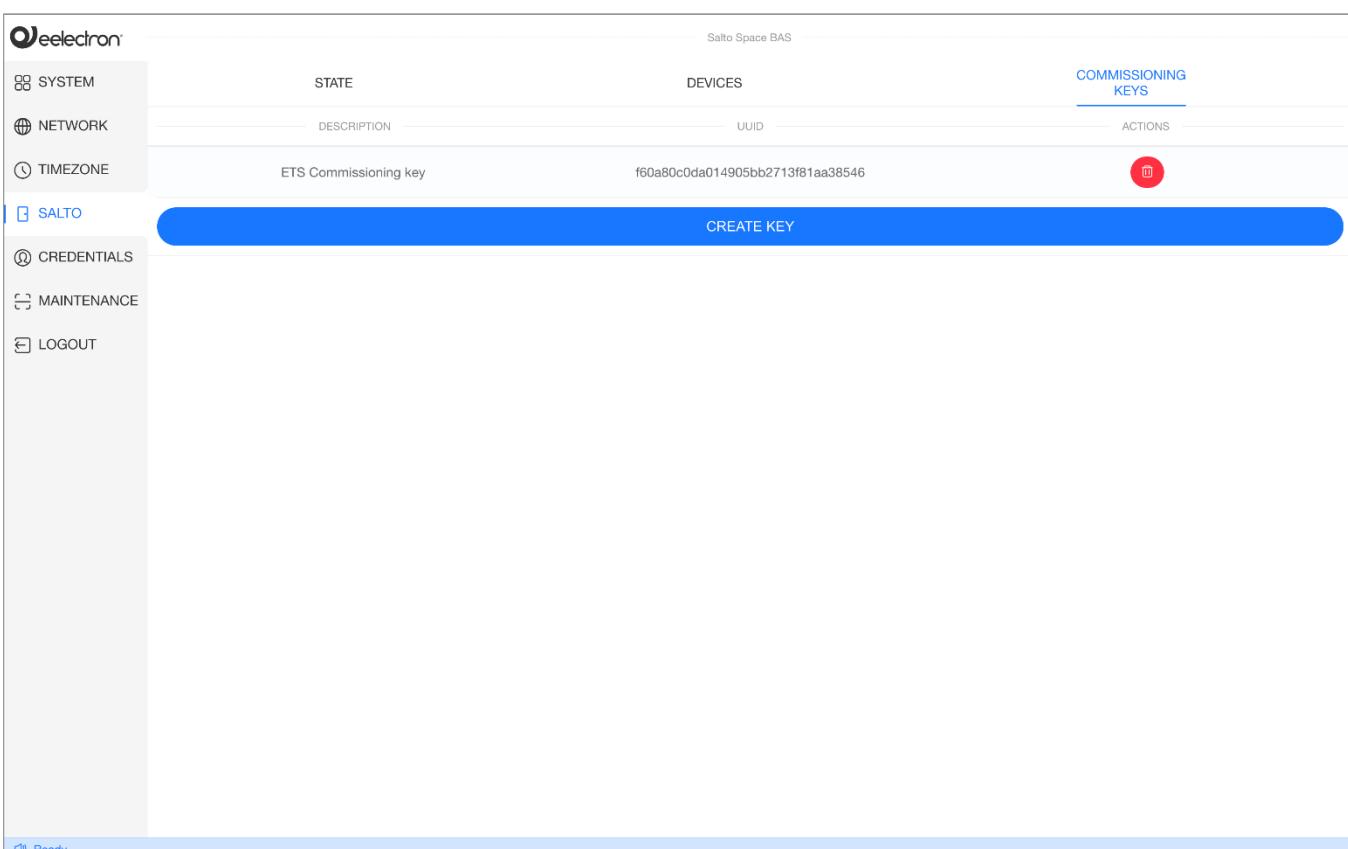
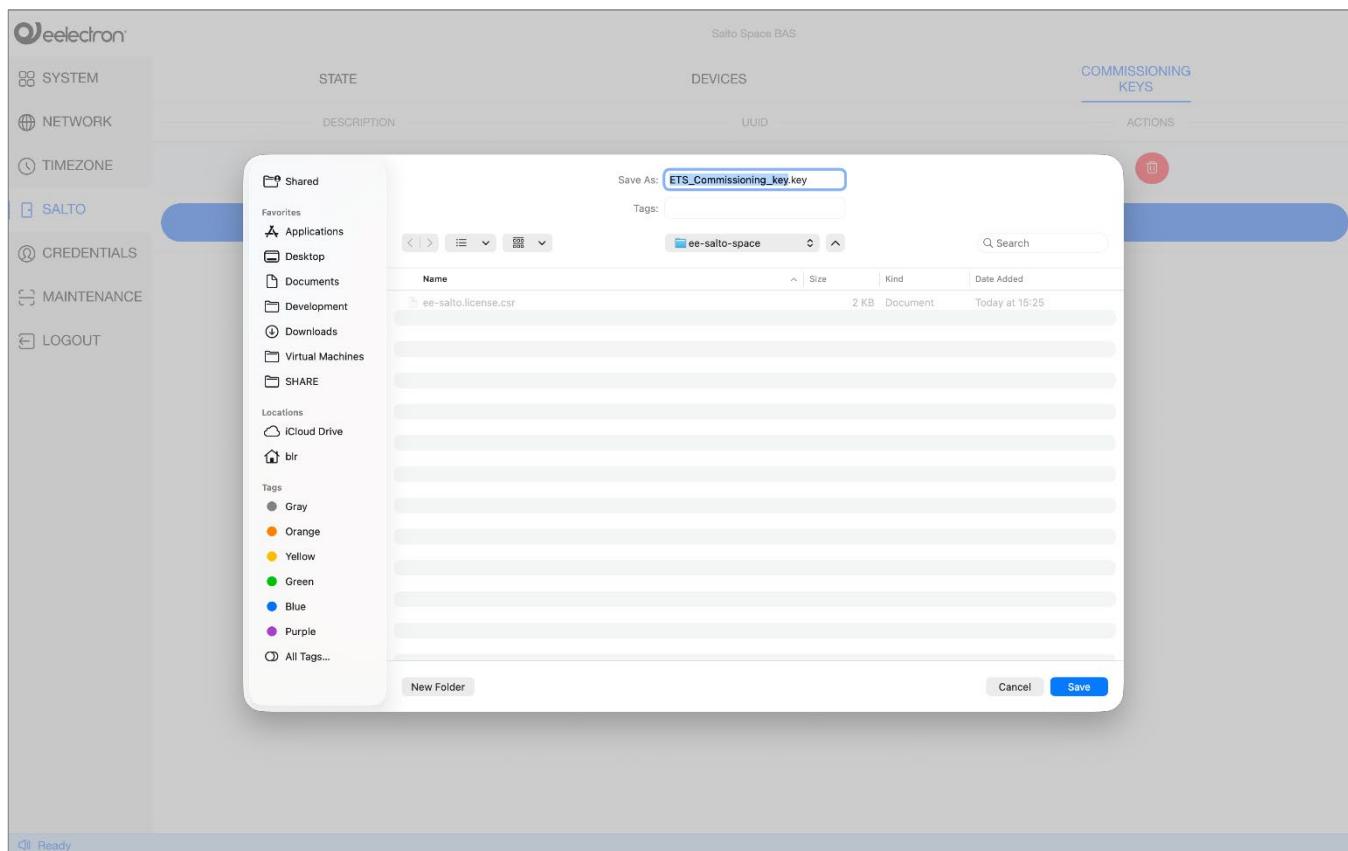
13

Steps 13 / 14 – Commissioning Key

The Commissioning Keys section allows the creation of a unique key that the field operator will use during the Enroll / Unenroll phase of each device through ETS.

Purpose:

commissioning keys ensure a secure and controlled enrolment process, allowing only authorized personnel to add or remove devices from the system. Each generated key uniquely identifies the commissioning session and is tied to the corresponding system instance. Once the commissioning phase is complete, it is the administrator's responsibility to remove the commissioning key from the system to prevent any unauthorized use.



Qeelectron		Salto Space BAS			
STATE	DEVICES	COMMISSIONING KEYS			
		▲ ROOM (187)	▲ ONLINE (179)	▲ STATUS	▲ UP TIME
NETWORK	1101	✓	COMMUNICATES,LEFT,OPENED	0:10:08:15	10/28/2025, 17:19:26
TIMEZONE	1103	✓	DOES NOT COMMUNICATE	3:08:09:43	10/28/2025, 17:19:26
SALTO	1105	✓	COMMUNICATES,PRIVACY,LEFT,OPENED	0:07:33:39	10/28/2025, 17:19:26
CREDENTIALS	1106	✓	COMMUNICATES	3:16:23:20	10/28/2025, 17:19:26
MAINTENANCE	1107	✓	COMMUNICATES,LEFT,OPENED	3:16:23:36	10/28/2025, 17:19:26
LOGOUT	1108	✓	DOES NOT COMMUNICATE	3:16:23:15	10/28/2025, 17:19:26
	1109	✓	COMMUNICATES	3:16:23:15	10/28/2025, 17:19:26
	1110	✓	COMMUNICATES	3:16:23:36	10/28/2025, 17:19:26
	1111	✓	COMMUNICATES	3:16:23:15	10/28/2025, 17:19:26
	1112	✓	DOES NOT COMMUNICATE	3:16:23:15	10/28/2025, 17:19:26
	1201	✓	COMMUNICATES,PRIVACY,INTRUSION	0:08:57:56	10/28/2025, 17:19:26
	1202	✓	COMMUNICATES,PRIVACY,LEFT,OPENED	0:08:17:18	10/28/2025, 17:19:26
	1204	✓	COMMUNICATES	3:16:23:36	10/28/2025, 17:19:26
🕒 Ready					

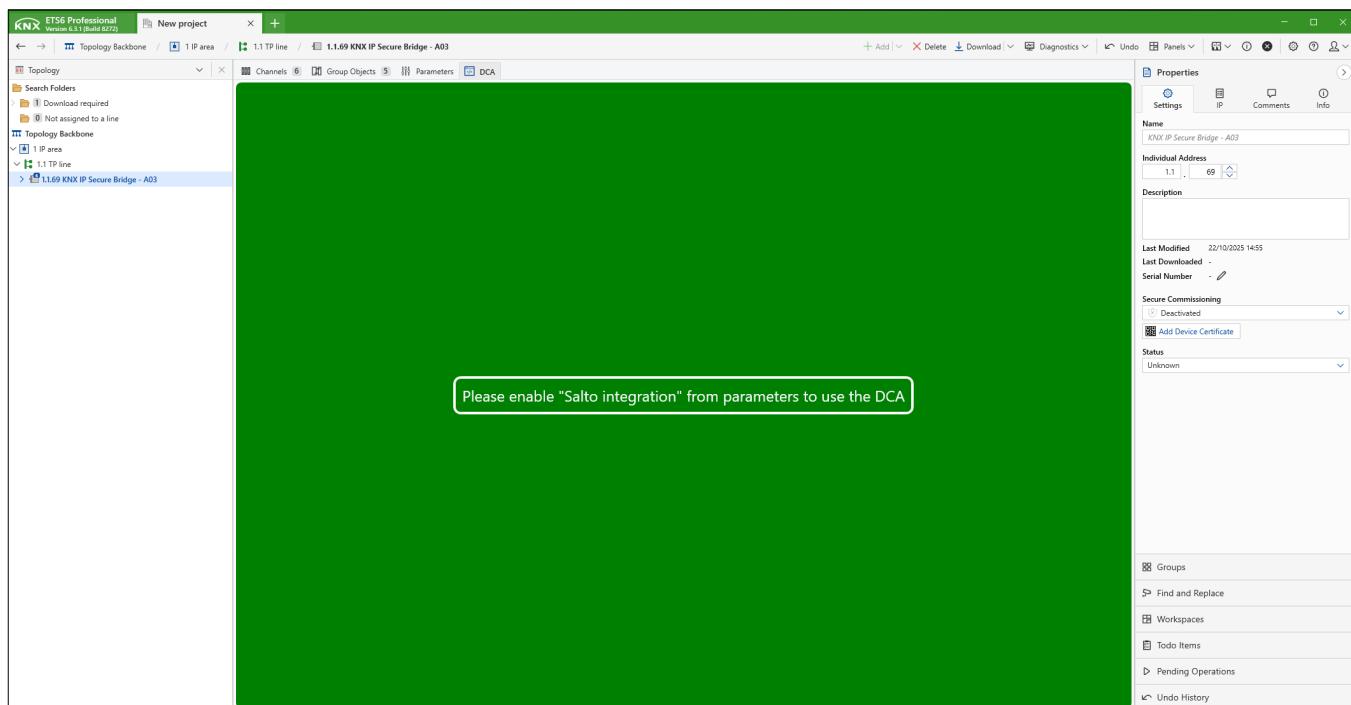
15

Step 15 – Devices

The Devices section lists all synchronized rooms and their corresponding connection and status information with Salto Space and the local system.

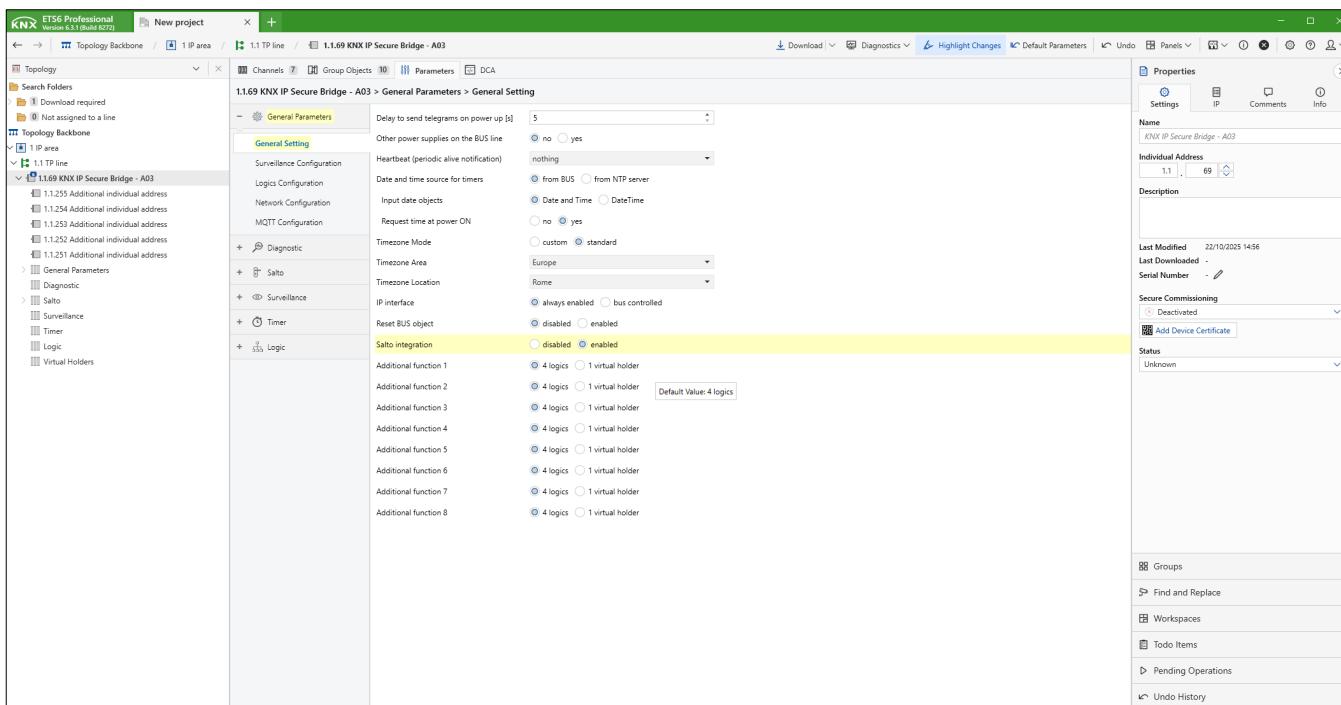
Each column provides a specific operational indicator useful for monitoring and diagnostics.

DEVICES PAGE DESCRIPTION	
Column Detail	Description
ROOM (Total Rooms)	Displays the room number or identifier assigned during configuration. Represents the total number of synchronized rooms.
ONLINE (Total Online)	Indicates whether the device linked to the room is currently connected to our system (green) Yes: device is online (orange) No: device is offline.
STATUS	Shows the room status as reported by Salto Space. This value mirrors the same status visible in the Salto Space management interface. Only one status is managed directly by our system: UNKNOWN, which identifies that the device is not connected to the system.
UP TIME	Displays how long the device has been continuously connected to our system. Useful for verifying connection stability.
LAST UPDATE	Indicates the last time our system queried the device to retrieve its operational status from Salto Space.
FW (Firmware Version/Consistency)	Shows the firmware version installed on each device. If all devices share the same firmware version, this field will display “consistency” to confirm version uniformity



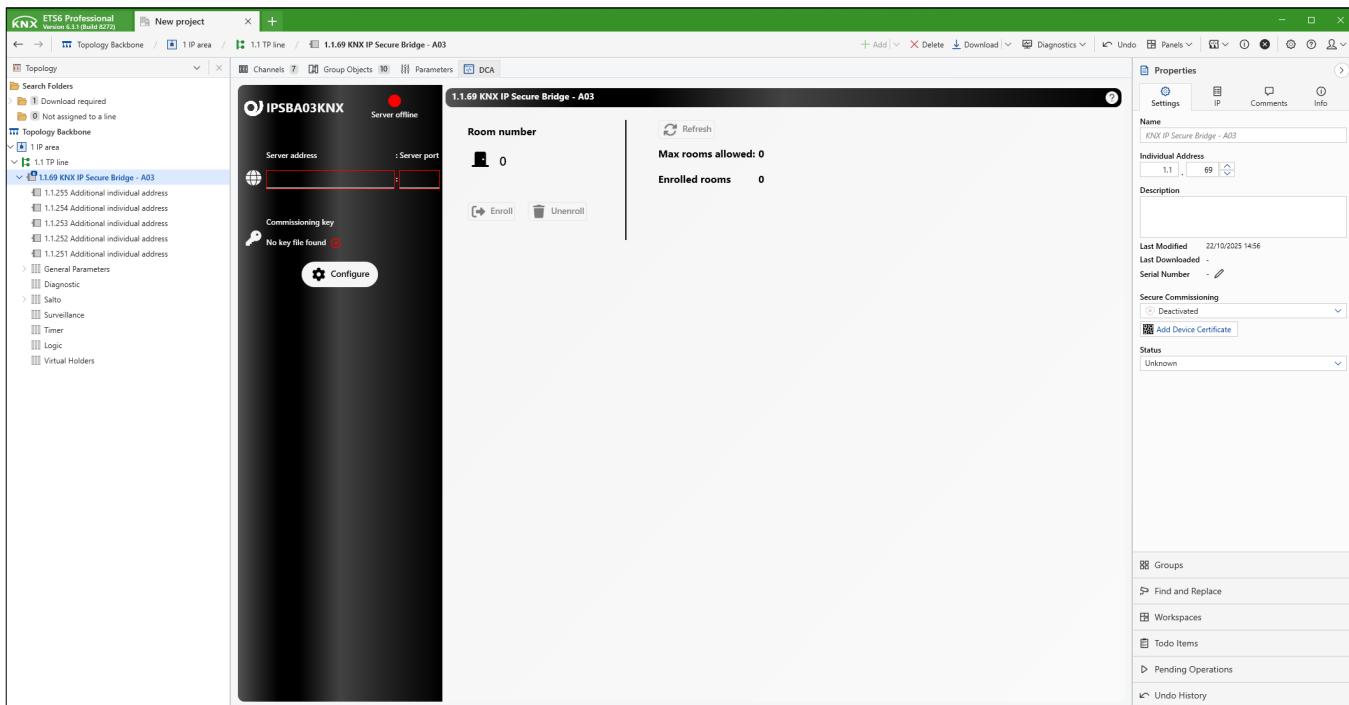
16

Step 16 - By default, the Salto integration is disabled.



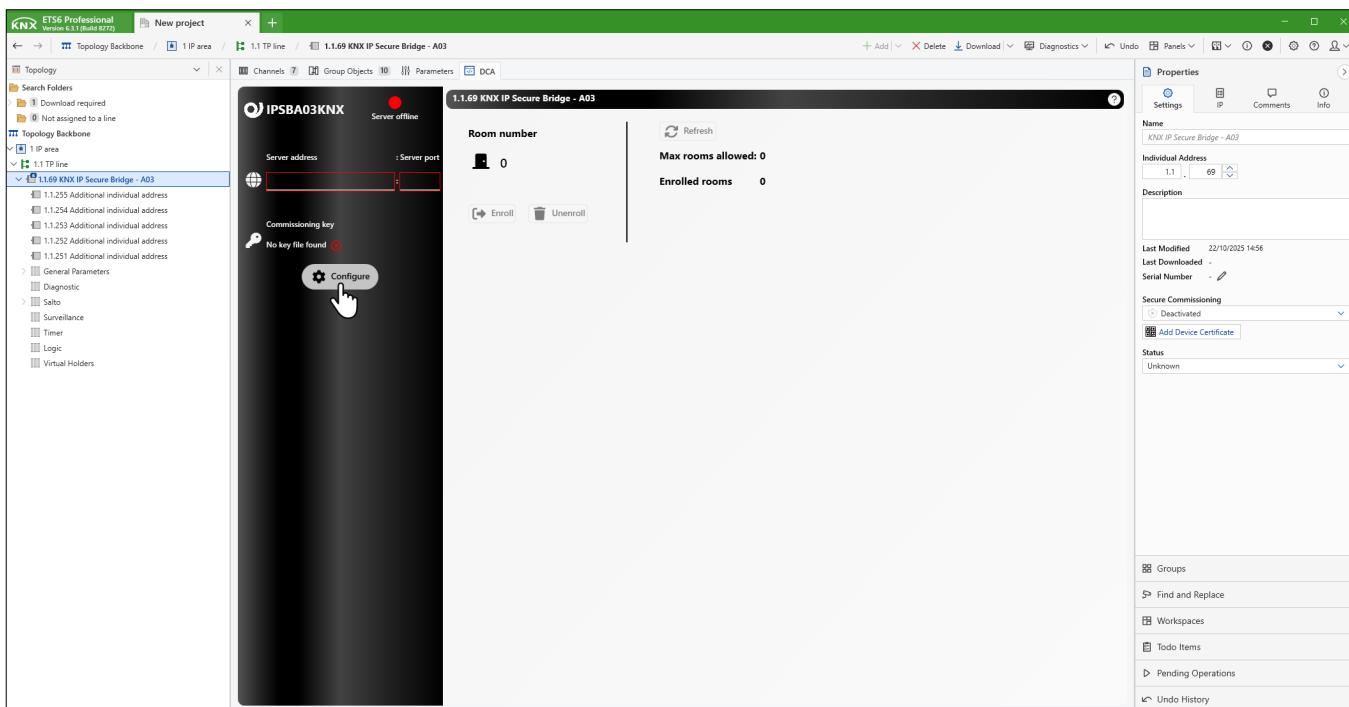
17

Step 17 - Enable the “Salto integration” parameter on the “General Setting” page.

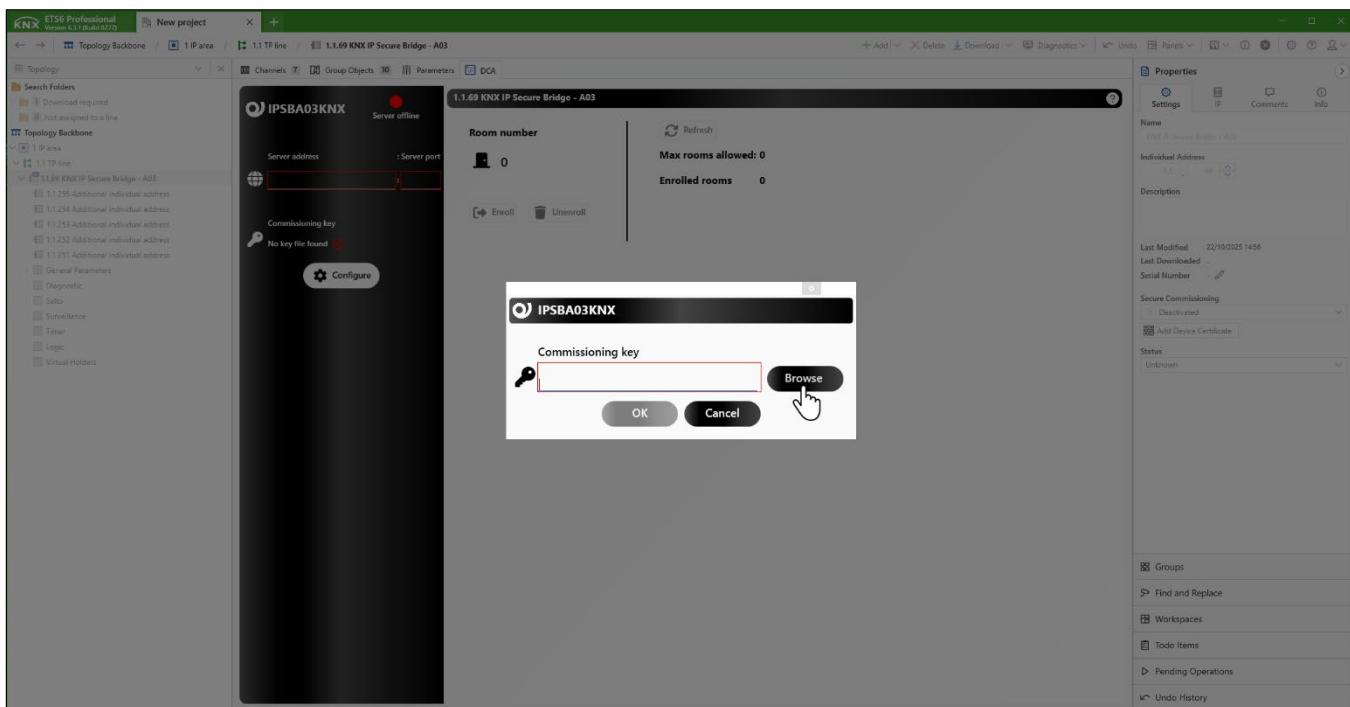


18

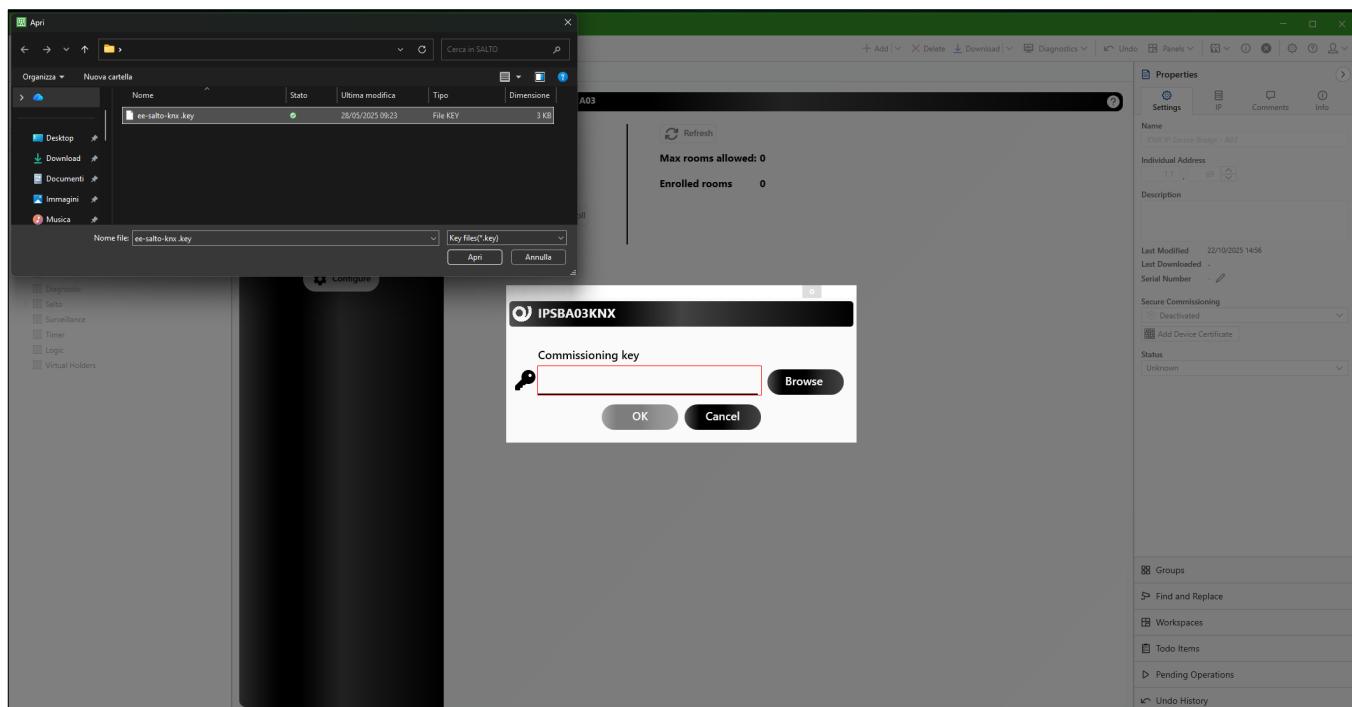
Steps 18 / 19 / 20 / 21 - In case of first-time configuration, the server parameters must be configured via the “.key” file previously generated. If the upload fails, the server-related fields are highlighted in red, indicating an error state.



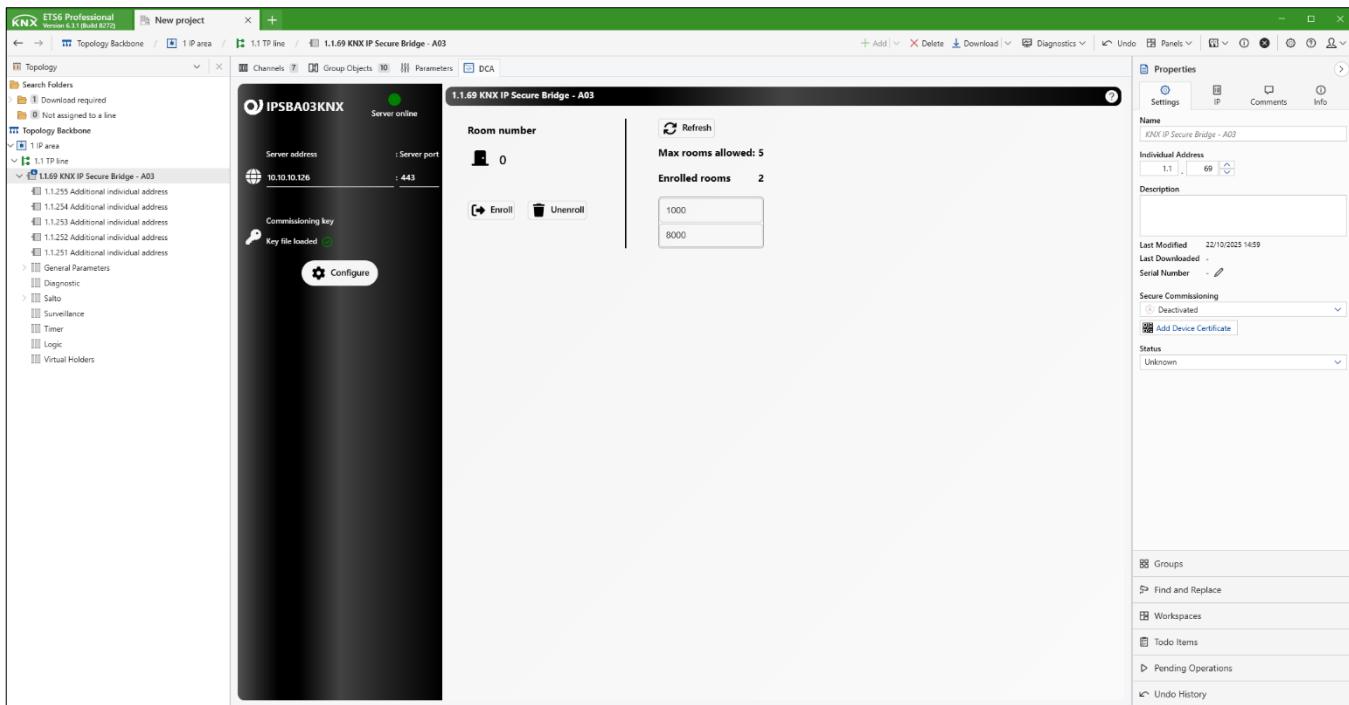
19



20

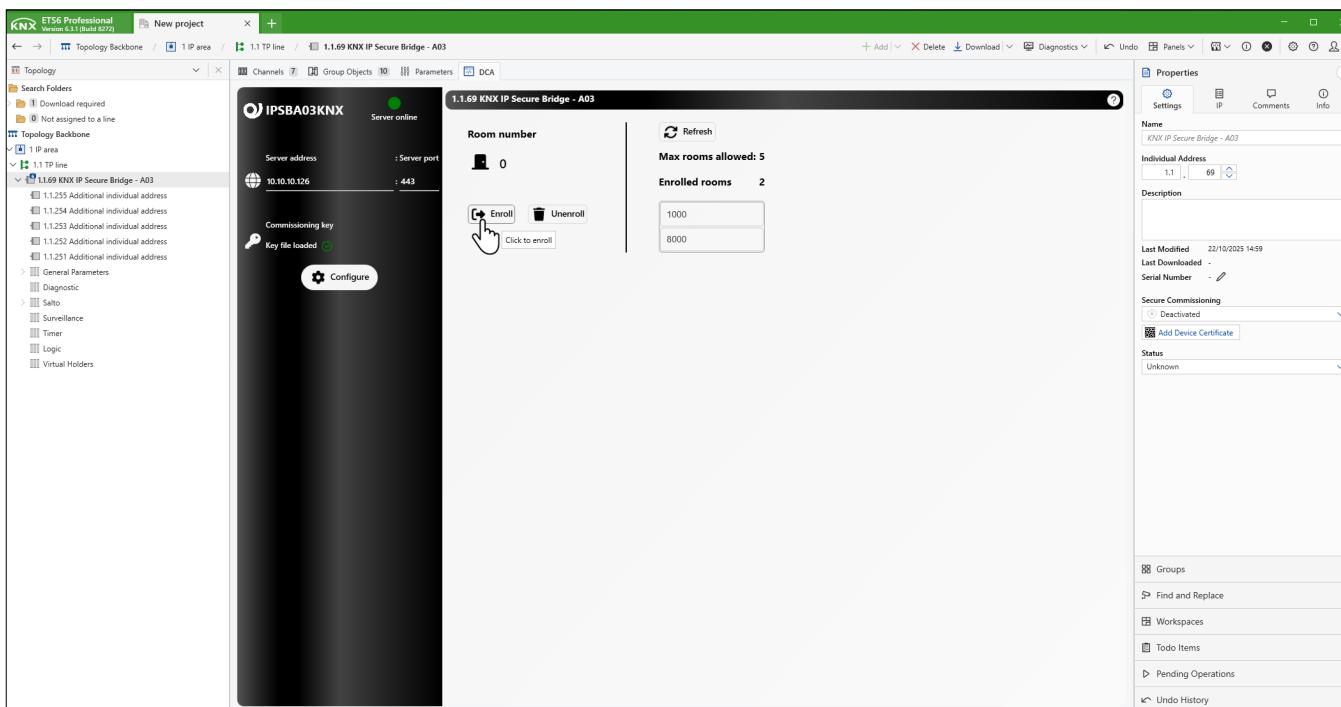


21



22

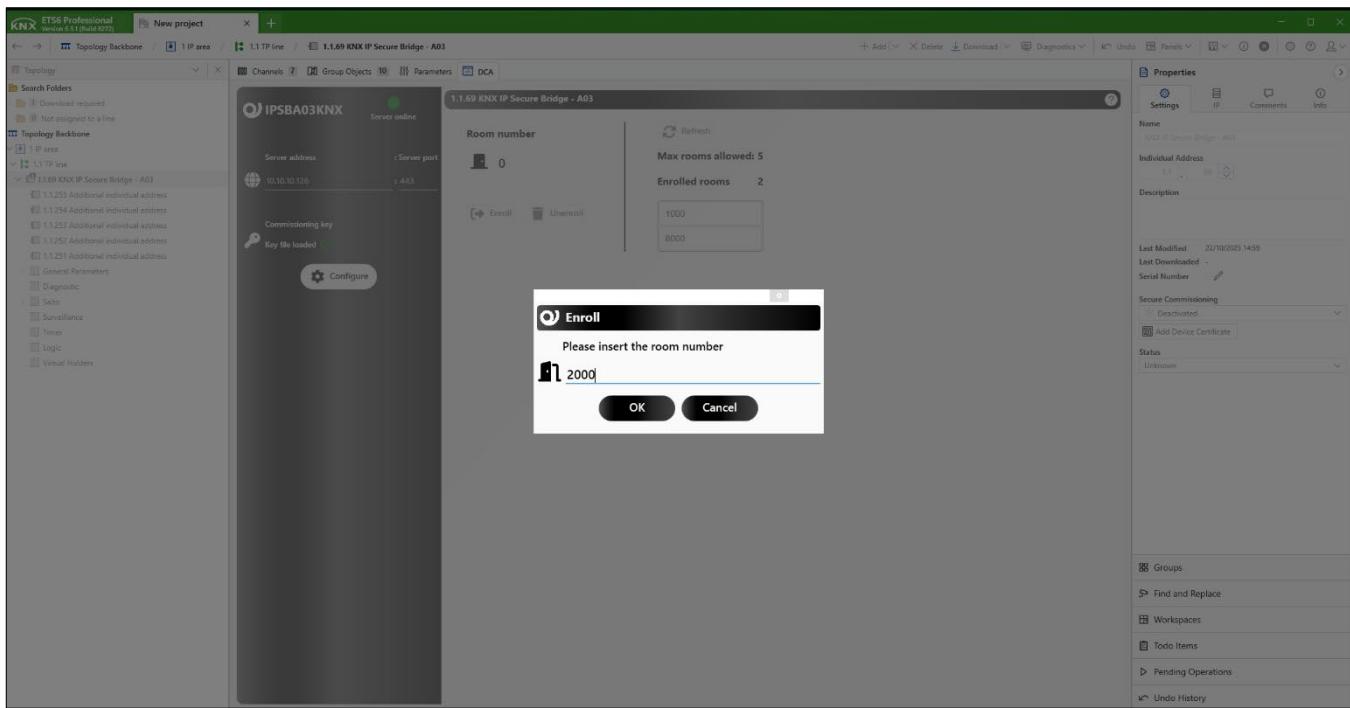
Step 22 - Once the “.key” file has been correctly uploaded, the server data is populated in the appropriate text fields and the server is online.



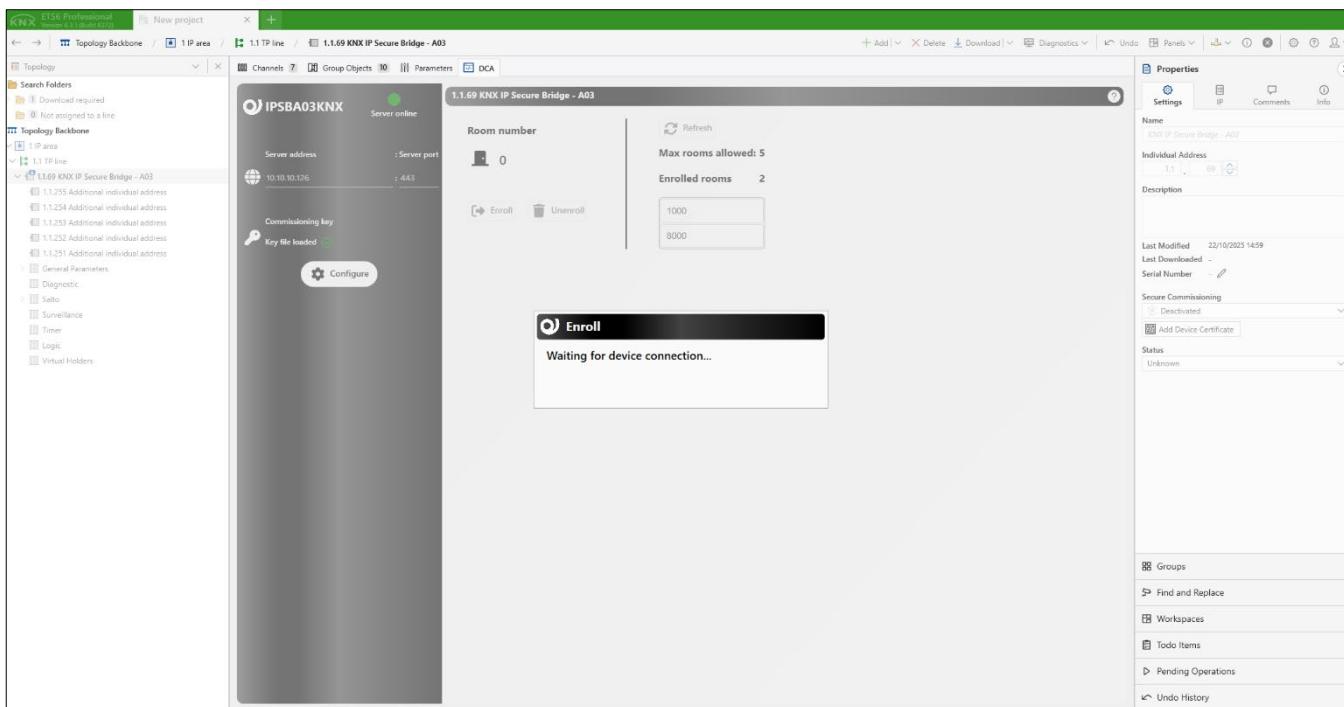
23

Steps 23 / 24 - Click on the “Enroll” button to add the desired room to the system.

Attention: the room number MUST NOT be already present in the system.

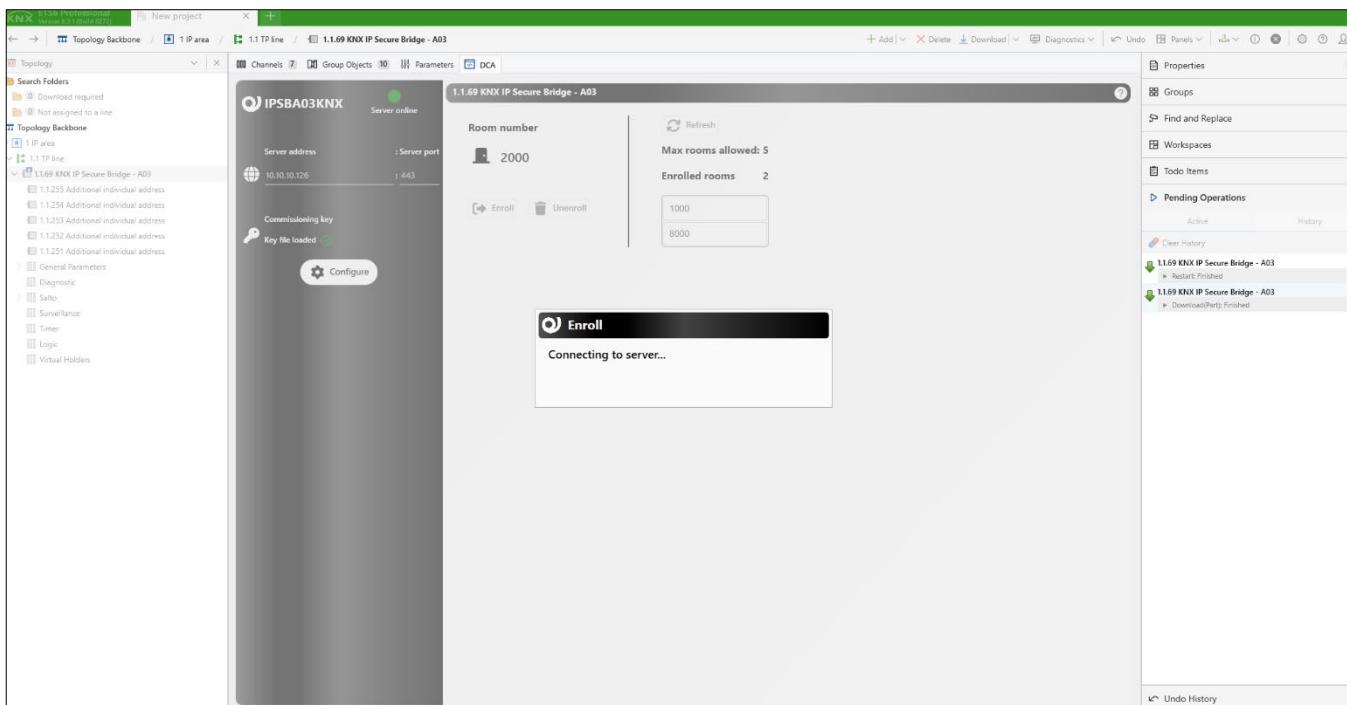


24

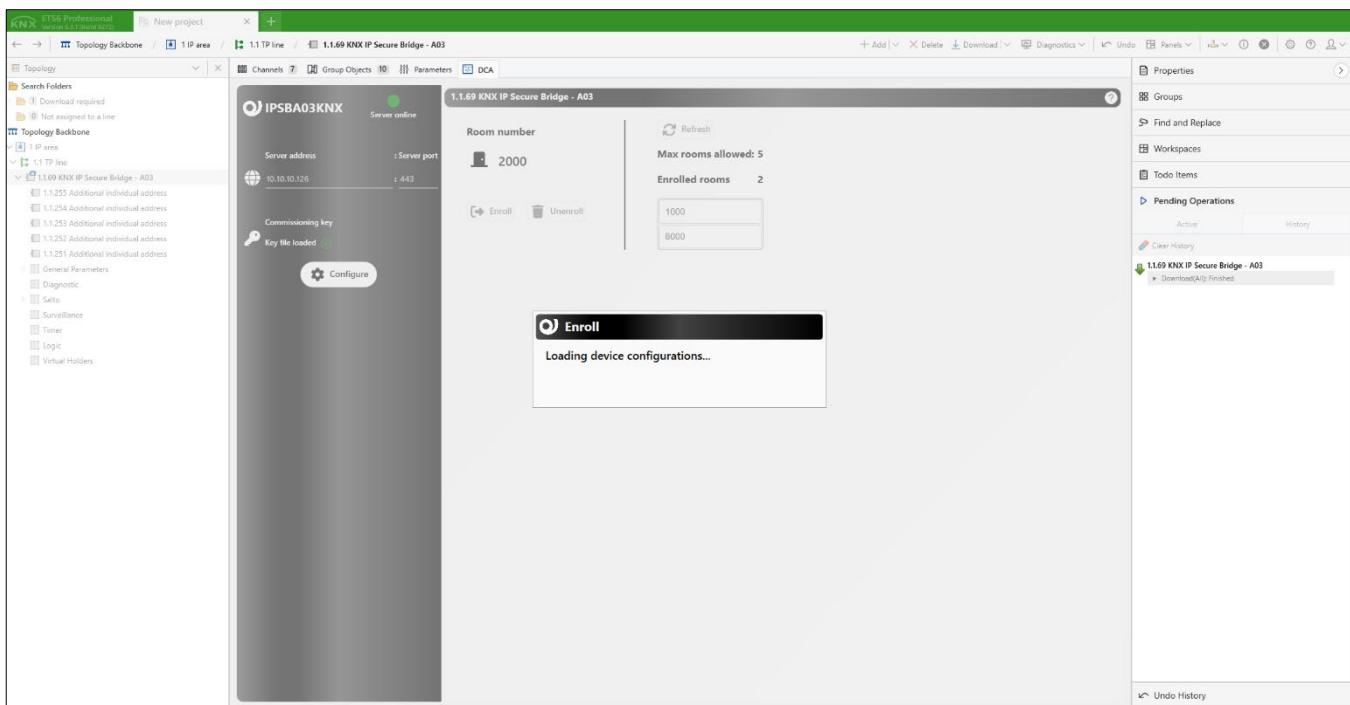


25

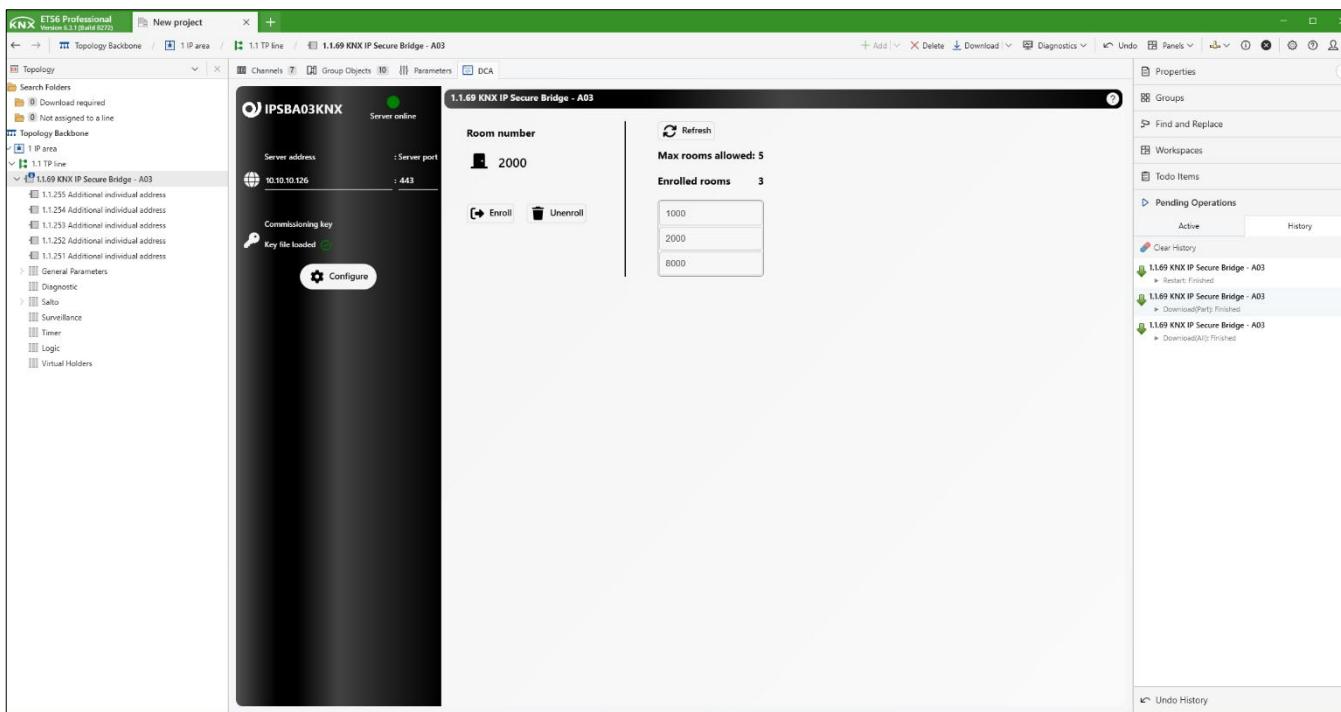
Steps 25 / 26 / 27 - Wait for the “Enroll” procedure to be completed.



26



27



28

Steps 28 - Once the procedure is finished, verify that the system's room list includes the last unit stored

4. FAQ - Salto Space Integration

1. If we unroll a room, will it also be removed from the Salto Space?

No, unrolling a room affects only the middleware and does **not** remove the room from the Salto Space system.

In this context, enroll and unroll refer exclusively to the creation or deletion of **MQTT client credentials** in the middleware.

The middleware operates based on the configuration present in Salto Space.

For example:

- If Salto Space has three rooms configured (e.g., **Room 101**, **Room 102**, **Room 103**), these rooms will be visible and manageable through the middleware.
- Unrolling one of these rooms in the middleware does not modify the actual configuration in Salto Space.

You may have 1000 rooms enrolled in the middleware, but unless those rooms also exist in Salto Space, **they will not appear in the devices list**.

The list of rooms visible in **Salto > Devices** reflects what is currently registered in Salto Space.

2. Synchronization

A synchronization process runs approximately every **60 seconds**.

 **Important:** *Synchronization is only possible if Salto Space is correctly connected to the middleware.*

You can check the connection status by navigating to: Salto > State > Salto Space Client.

3. Replacing a Device That Is No Longer Reachable via LAN

If a device is no longer reachable via LAN and needs to be replaced, follow these steps carefully.

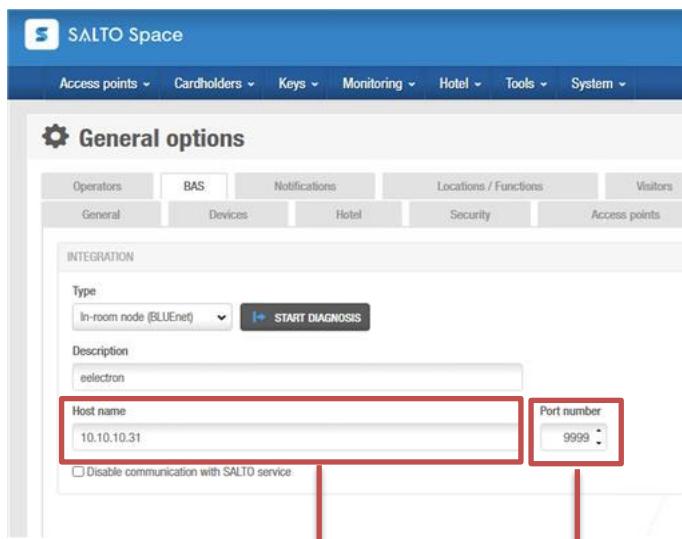
 **Important:** *The enroll and unenroll operations must always be performed using the dedicated DCA in KNX ETS.*

Replacement Procedure

1. **Install the new device** physically and connect it to the KNX bus.
2. **Assign the physical address** to the new device from ETS.
3. Open the **Salto DCA** in ETS.
4. Perform the **Unenroll operation** for the room number associated with the old device.
5. Once unenroll is complete, proceed with the **Enroll operation** for the new device, assigning it to the correct room.

This ensures that the old device is properly removed and the new one is correctly linked to the system via the middleware and Salto Space.

4. Configuration



VIRTUAL MACHINE IPV4 ADDRESS THIS MUST BE 9999

