

Alliot Key Management System (KMS) User Guide

1. Purpose

The Alliot Key Management System is a web application used to store and distribute the encryption keys used by LoRaWAN devices. Every LoRaWAN node device (e.g. a sensor) needs a devEUI (unique device identifier), an appEUI/joinEUI (newer versions of the LoRaWAN protocol use the name joinEUI) and an appKey in order to work. The appKey needs to be kept securely in order to ensure integrity of your LoRaWAN network.

Alliot have designed and built the KMS to store these pieces of information securely and give customers a means of accessing them over the Internet in a secure way.

Key features of the system are that it is simple, fast and secure. It is not designed to be an asset management system, it's purpose is to store LoRaWAN keys for customers to access.

2. How to access

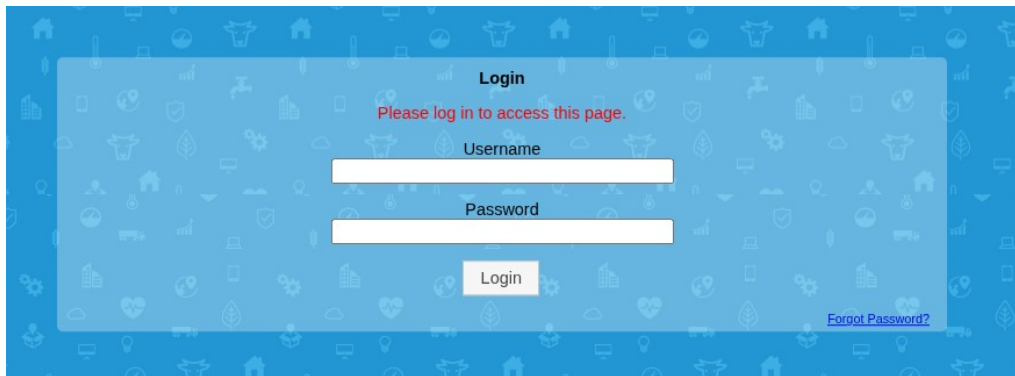
If you buy LoRaWAN devices from Alliot, we will set up an account for your company on the KMS when your first order ships and add your devices to it. This only applies to end-device nodes such as sensors, LoRaWAN gateways do not have any keys associated with them.

Each member of your staff who need to access the KMS can be given a login which is associated with their email address. Only Alliot staff can do this, typically an initial account will be setup with the email of the person who has placed the order. If more accounts are needed please raise a support ticket (<https://www.alliot.co.uk/techsupport>).

The KMS itself is accessed using this URL: <https://kms.alliot.co.uk>. The site is only accessible using encrypted HTTPS. If you attempt to browse to HTTP, you will be re-directed.

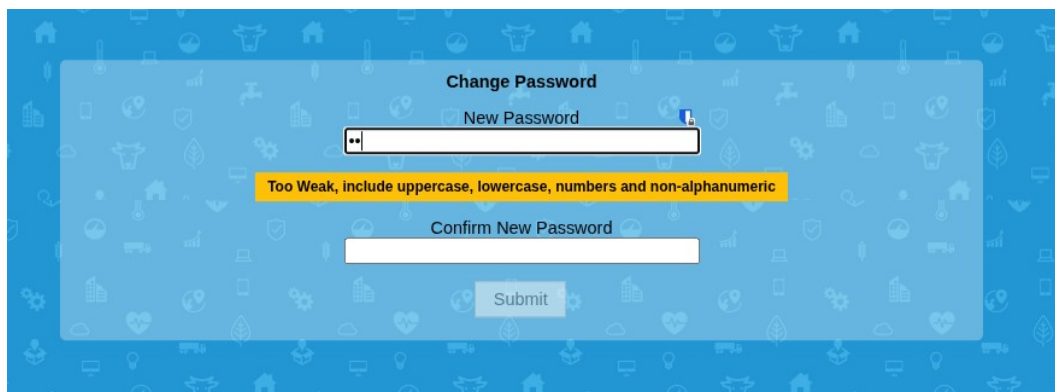
Your user name will be your email address in lowercase.

To gain access, use the “Forgot Password” link on the login page:

A screenshot of a login page with a blue background featuring a pattern of small white icons. A central white box contains the login form. At the top of the box is the word "Login" in bold. Below it is a red message: "Please log in to access this page." There are two input fields: "Username" and "Password". Below the password field is a "Login" button. In the bottom right corner of the white box, there is a blue link that says "Forgot Password?".

This will send you an email with a single-use link to click to setup a password. The link is valid for one hour so ensure you click it and set a password within this time. If it expires, just click the “Forgot Password” link again to send a new reset email.

The password reset page looks like this:

A screenshot of a "Change Password" page with a blue background featuring a pattern of small white icons. A central white box contains the form. At the top of the box is the text "Change Password" in bold. Below it is a "New Password" input field. A yellow error message is displayed below the input field: "Too Weak, include uppercase, lowercase, numbers and non-alphanumeric". Below the error message is a "Confirm New Password" input field. At the bottom of the white box is a "Submit" button.

It will guide you on password complexity needed. Once submitted, you’ll be back at the standard login page and can login using your new password.

We recommend using a password manager such as BitWarden (which is free) and using randomly generated passwords created by that.

The login page is rate limited so if you get your login incorrect too many times, you will need to wait a while before you can try again.

3. Viewing Keys

Once logged in, you will see the list of keys belonging to your company. All usernames setup for your company will see the same list.

DevEUI	AppEUI	AppKey	Serial Number	Alliot Invoice ID	Customer Reference	SKU	Last Updated
00137A1000005555	6656A586E5A7234	2F423F4528482B4D6251655468576D5A	None	INV-001166	None Edit	-	2026-04-09 06:16:11
00137A1000007777	6856D5971337436	566D597133743677397A24432646294A	None	INV-001188	stunt mole Edit	-	2026-04-09 06:16:11
00137A1000008888	75377721A25432A	4A614E645267556B5870327335763879	None	INV-000923	d Edit	-	2026-04-09 06:16:11
0018B22000002334	0018B24452494331	A58A47E458614E8E21713AD677E2E0CC	None	INV-001170	None Edit	ARF8170BCA-B02	2026-04-09 06:16:11
0018B2200000233C	0018B24452494331	48FA46D2CB9056A7F5851EC741F38171	None	INV-001170	None Edit	ARF8170BCA-B02	2026-04-09 06:16:11
0018B2200000233F	0018B24452494331	06C3A487A79FEF63843E560D377CFE5	None	INV-001170	None Edit	ARF8170BCA-B02	2026-04-09 06:16:11

There is a logout link at the top right of the screen to exit the system but this is usually not needed as login sessions are time limited.

LoRaWAN keys belonging to your company are shown in the bottom portion of the screen. To begin with 500 keys are loaded, if you scroll down to the bottom, a further 500 are loaded and added to the list, you can keep scrolling in this way until all your keys are displayed. There is no limit but if you have a lot of keys, it makes more sense to use the search boxes, more on that in the next section.

Above the main list of keys is a summary box showing how many keys are currently loaded on the screen and how many keys you have in total in the KMS:

Keys Displayed: 41
Total Keys in System: 41

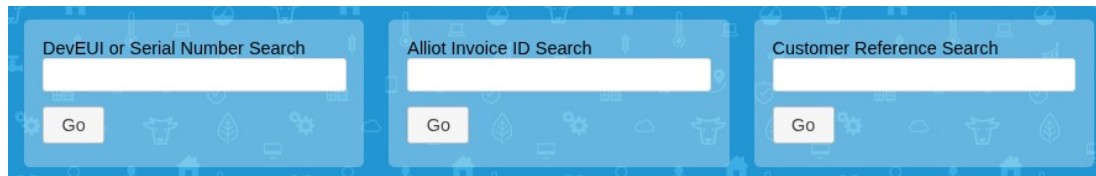
The columns of this table are described as:

- **DevEUI, AppEUI, AppKEY** – these are the LoRaWAN credentials for the device
- **Serial Number** – if a device has a serial number other than it's DevEUI, it will normally be shown here. Many devices don't have a separate serial number and just use the DevEUI as the only identifier. Any serial number is merely used for tracking a device, it has no meaning in the LoRaWAN protocol and isn't needed to add a device to a LoRaWAN Network Server/platform
- **Alliot Invoice ID** – the invoice number from when this device was bought from us. Useful to use in the search box at the top to find all devices bought at the same time
- **Customer Reference** – this is for you to put some text in to so you can group and identify devices how ever you want to. It will be empty by default, click on the "Edit" button to enter some text. Examples could be your own customer's name or a site name the device is installed in to. Once filled out, this text can be used in the search box at the top to find all devices with that reference

- **SKU** – this is the manufacturer’s part code for the device so you can identify what the device is. We fill this out automatically wherever possible, sometimes we aren’t provided this information by manufacturers when they send us the LoRaWAN keys
- **Last Updated** – a time stamp when any information about this device was last changed, it’s not the date the device was purchased or added to the KMS

4. Searching for keys

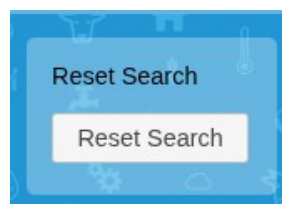
There are three search boxes at the top of the KMS screen:



The image shows three search boxes side-by-side on a blue background. Each box has a title, a text input field, and a 'Go' button. The first box is titled 'DevEUI or Serial Number Search', the second 'Alliot Invoice ID Search', and the third 'Customer Reference Search'.

- **DevEUI or Serial Number Search** – type in a single, complete DevEUI or Serial Number and the list of devices shown below will be filtered to that single device, if found
- **Alliot Invoice ID Search** – type in a single, complete Alliot Invoice ID, these are in the format “INV-#####”. All devices from that invoice will be shown in the list below
- **Customer Reference Search** – enter a single, complete reference and the list below will be filtered to show any devices where you have setup that reference number previously
- You can also use your web browsers built in search function (usually accessible by pressing *CTRL+f*), then type in whatever you want to search for. Just be aware that this only searches for whatever is shown on the screen and usually not all keys are shown until you keep scrolling down the page

To the right of the search boxes is the reset button:

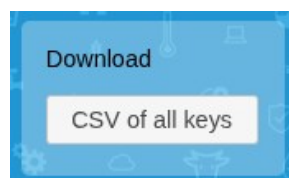


The image shows a blue button with the text 'Reset Search' in white.

Use this to clear any searches and the list of devices will be reloaded with all devices shown as it is when you first log in.

5. CSV export

In the middle of the upper part of the screen is the CSV export button:



The image shows a blue button with the text 'Download' in white, and a smaller white button with the text 'CSV of all keys' in blue.

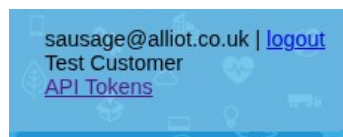
This will download a CSV file of **all** your LoRaWAN keys at once. It's intention is when you have your own KMS or asset management system you want to import all your devices in to.

Use this with caution, ensure you are storing this file and any keys securely. Do not send it by email as this is inherently insecure.

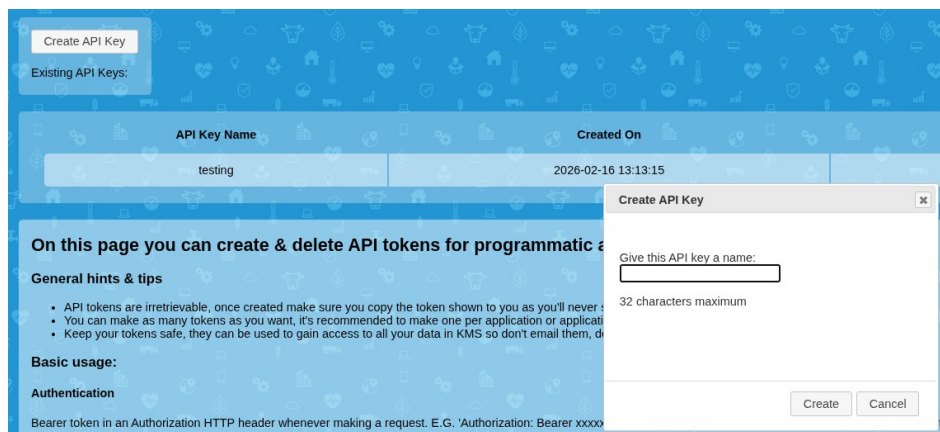
6. API usage (advanced)

The KMS has a simple API that can be used to programmatically access LoRaWAN keys. The intention is you could integrate the system into your LoRaWAN platform (so for example someone can add a device simply by entering it's DevEUI or serial number and the keys are obtained automatically), or integrate into an asset management system so device details are automatically imported.

Any KMS user can access the API by clicking the API Tokens link at the top right of the screen below the username:



There will be no API token setup by default, you can add as many as you wish by clicking on the “Create API Key” button, then give it a name so you know what it was created for:



You should create an API token per application you are wanting to use the API with rather than sharing a single API token between applications. That way, you can revoke access to specific applications by deleting individual tokens.

Click Create and you will be shown the generated API token:



You need to save that **now**, once this box is closed, you will never see this token again and Alliot are not able to retrieve them as they are one-way hashed in storage. You can of course delete the token and make a new one if you forget it.

At the bottom of this API screen are some instructions on how to use the API, going in to this in detail is beyond the scope of this user manual, if you need help please raise a support ticket (<https://www.alliot.co.uk/techsupport>). Note that the API is intended to be used by a software developer, we cannot provide code examples beyond the basic curl command examples shown on the screen.

7. Further information

If you need more help or information, in the first instance please raise a support ticket using our technical support portal: <https://www.alliot.co.uk/techsupport>

We are also open to suggestions on how we can improve the KMS and new features that could be added.