

Data Sheet

READY – API Access

- Add-on module for READY Manager
- Automatically access data from READY Manager
- Subscribe to different data resources to stay up to date
- Minimise the risk of data loss and security breaches
- REST, JSON, and OAuth2-based API



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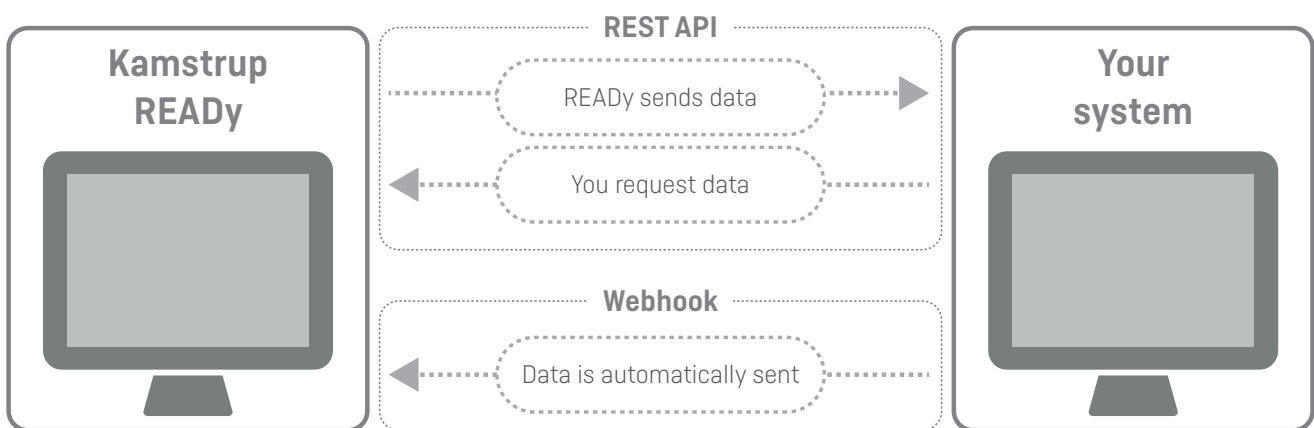
Terminology

| Term | Description |
|----------|---|
| REST | Stands for 'Representational State Transfer' and characterises an API that follows a set of constraints and where the server transfers a representation of the state of the requested resource to the client. |
| Webhook | An API that is driven by events rather than requests. |
| API | Stands for 'Application Programming Interface' and characterises a piece of software that allows other software components to communicate with each other. |
| Client | The person or software who uses the API. |
| Resource | A resource can be any object that the API can provide information about. |
| Hashing | Hashing is the process of taking a piece of information and passing it through a function that performs mathematical operations on it and transforms it into another, unrecognisable, value. |
| SHA-256 | A secure hash algorithm. SHA-256 generates an almost unique 256-bit (32 byte) signature for a piece of information. It is used to ensure the authenticity of data. |
| Base64 | A binary-to-text encoding scheme used to encode binary data as printable text. It is used when there is a need for binary data to be stored and transferred over media that are designed to deal with text. |

Introduction

API Access is a RESTful and Webhook-based API that provides flexible access to the data in READY Manager and enables a seamless exchange of data between READY and other applications and services (clients), including third-party systems. From a technical standpoint, API Access empowers software developers to automate, extend and combine device [e.g. a meter] data with other systems or services. As a result, the API guarantees a more fluid information delivery and an integrated user experience.

Flexible access to the data in READY allows you to extract meaningful subsets of data and use them in innovative ways, for example in combination with data from other systems, to create new products and tools – or improve existing ones.



READY requirements

Kamstrup-hosted READY

To use API Access, it is required that the customer has a Kamstrup-hosted READY solution.

With READY System Hosting, Kamstrup takes care of your READY software, IT platform and data. We make sure that both the READY Suite and the IT platform are always up to date and run at the highest performance and accessibility possible. In other words, a Kamstrup-hosted READY solution provides maximum performance for minimum effort.

If a local READY installation is used rather than a hosted solution, an automatic file export via FTPS or SFTP can be utilised.

READY version

Some endpoints have a minimum required READY version – view each endpoint description in the Swagger documentation to see the minimum supported READY version.

- For EU: <https://api-eu.ready.kamstrup.com/swagger/index.html>

- For US: <https://api-us.ready.kamstrup.com/swagger/index.html>

PC hardware and software

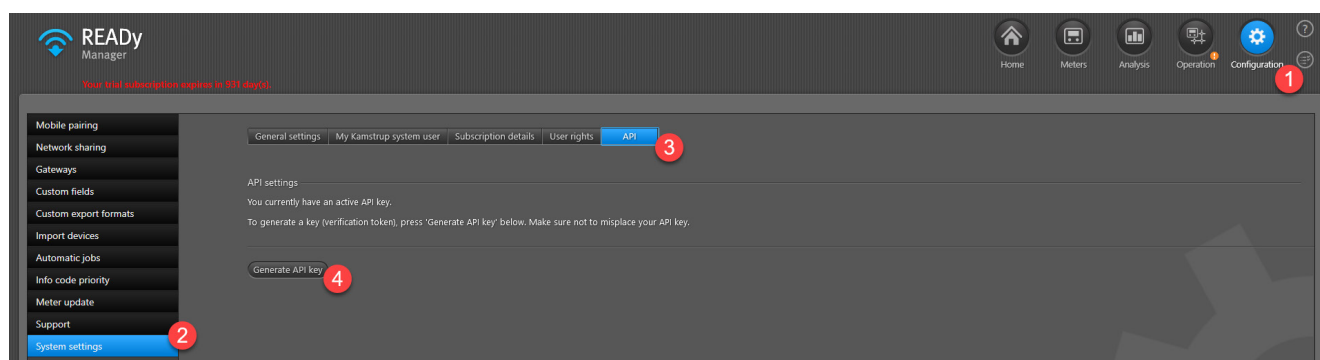
As API Access requires a Kamstrup-hosted READY solution, some additional requirements apply:

- PC with Microsoft Internet Explorer 9 or newer and Microsoft Windows 10, 64-bit or newer
- The PC must be fully updated via Windows Update
- Internet access and open outgoing TCP/443

Client Secret

To create an API Access Webhook request, a customer needs to have an active API key. When the customer has an active API Access subscription, they can generate an API key, which is a Base64 value (see "Terminology") created in READY Manager. A customer can only have one active API key at a time.

This key is used to confirm a Webhook subscription by taking a verification token and hashing it using the client secret and SHA256 (see "Terminology"). The hash value must be Base64. An example of how to do this can be found in the "How-to guide – Getting started with API Access".



Other requirements

An active client server

Some of the API Access endpoints create asynchronous Webhook subscriptions. To handle these Webhook subscriptions, the customer is required to have at least two endpoints reachable by the API. These are:

- an endpoint for the data (called WebhookUri)
- an endpoint for status updates (called StatusUri)

Thus, a customer needs to provide Kamstrup with a Webhook URL and a Status URL to which data can be sent. In other words, a customer needs to have a client server setup to be able to receive data via Webhooks.

Active email address and phone number

When a utility buys API Access from Kamstrup, they are provided with the below OAuth information. The information is sent to a utility contact person, typically the person ordering API Access.

| Property name | Value |
|---------------|--|
| Tenant ID | <Is sent by mail when API Access has been created> |
| Client ID | <Is sent by mail when API Access has been created> |
| Client secret | <Is sent by SMS when API Access has been created> |

Therefore, to use API Access, an active email address and phone number are required.

Software development resources

API Access is not a ready-to-sell application such as Kamstrup's READY Manager or Leak Detector. To set up and use the API, software development capabilities are required. Thus, anyone wanting to use the API needs to have these capabilities in-house or to partner up with someone who has them. Kamstrup does not deliver software development consultancy services related to the API.

Thus, the API is not a plug-and-play solution. Instead, it is a programmable doorway to opening READY to other third-party applications.

READy – API access

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