



API Inbox: REST Gateway

The REST gateway of the IoTSens API Inbox allows authorized devices and applications to send measures to the IoTSens platform using REST technologies. The gateway is in charge of receiving messages with the information generated by external devices or applications and sending those messages to the IoTSens processor queues.

Service endpoint

The URL to send messages to the IoTSens platform is the next one:

- <https://iotsens-inbox.grupogimeno.com/services/rawmessage>

In this URL it is expected to make a POST request with the contents in JSON format, so it is necessary to add to the header: "**Content-Type: application/json**"

Message format

The JSON message required by the REST service consists of four fields, two of which are optional:

- node**: The device / sensor identifier in IoTSens.
- data**: Measures to be sent to the platform for the device / sensor should follow the format "VARIABLENAME:VALUE|VARIABLENAME:VALUE|etc"

For example, if IoTSens has registered a temperature sensor that sends both the temperature and battery information a possible message would be: "TEMP:2400|BAT:2340".

- timestamp** (optional): If the message does not contain this field, the platform will use the instant in which the message was received as the instant of the measurement. If the message contains this field, the moment in which the measurements were taken must be indicated in Unix EPOCH format; That is, the number of seconds since UTC midnight on January 1, 1970. For example, for a measure taken on 7/23/2015 00:00:00 the value sent should be 1437609600.

- **type** (optional): In case the content of the message (the *data* field) is not in the default format defined in this document, it is possible to extend the platform to be able to process it. In this situation, the *type* field would indicate the code of the message type being sent. To make use of this functionality, contact the IoTSENS team.

According to this description, a typical sending message to the platform could be as follows:

```
1 {  
2   "node": "TEMP00FA",  
3   "timestamp": "1437609600",  
4   "data": "TEMP:2400|BAT:2340"  
5 }
```



Note that both the device sending the information and the characteristics of the variables it measures must be registered on the platform before sending the messages.

Authentication

In order to use the REST gateway of the IoTSENS Inbox API it is necessary to have an authorized application **code** and a **password**.

The gateway uses two authentication mechanisms to identify the client application and verify that it has the necessary permissions to perform the requested operation. You can choose the one that suits you best.

- **Http Basic Auth**: Is the mechanism for performing the authentication as indicated in HTTP standard¹. It consists of building a string with format "APPCODE:PASSWORD", applying a Base64 encoding and adding it in an HTTP header with the format: "Authorization: Basic QWxhZGRpbjpvY2VudHl2FtZQ==".
- **URL Parameters**: In the request URL you can add the parameters **appName** and **pass** with the credentials. For example:

<https://iotsens-inbox.grupogimeno.com/services/rawmessage?appName=APPCODE&pass=PASSWORD>

¹ https://en.wikipedia.org/wiki/Basic_access_authentication

