



# Technical Guide API Connection

October 11th, 2023

The logo for ungrid, featuring the text "ungrid" in a stylized font. The "un" is in pink, the "g" is in orange, and the "rid" is in yellow. The logo is positioned on a large orange rectangular background that occupies the bottom right portion of the page.

ungrid

<b>Référence</b>	TechnicalGuide-INGRID-API-EN	<b>Classement</b>	
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<b>Accessibilité</b>	<i>Accès réservé</i>		<i>Restreint</i>		<i>Interne</i>		<i>Libre (à préciser)</i>	<b>X</b>
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<b>Résumé</b>
This document explains how to connect to Ingrid API

## 1. Content and versioning

Version	Date	Writer(s)	Content
V1.0	10/10/2022	C.CHERRIER	Initial version
V1.1	30/01/2022	C.CHERRIER	Add comment on API list
V1.2	03/02/2023	C.CHERRIER	Add explanations on Postman and some new APIs
V1.3	11/10/2023	C.FLORESTANO	Additional API for mesasures, allocations, exceeding, imbalance

## 2. Description

This document explains how to connect to Ingrid API. The description how each API can be found in the corresponding technical guide.

## 3. Access request

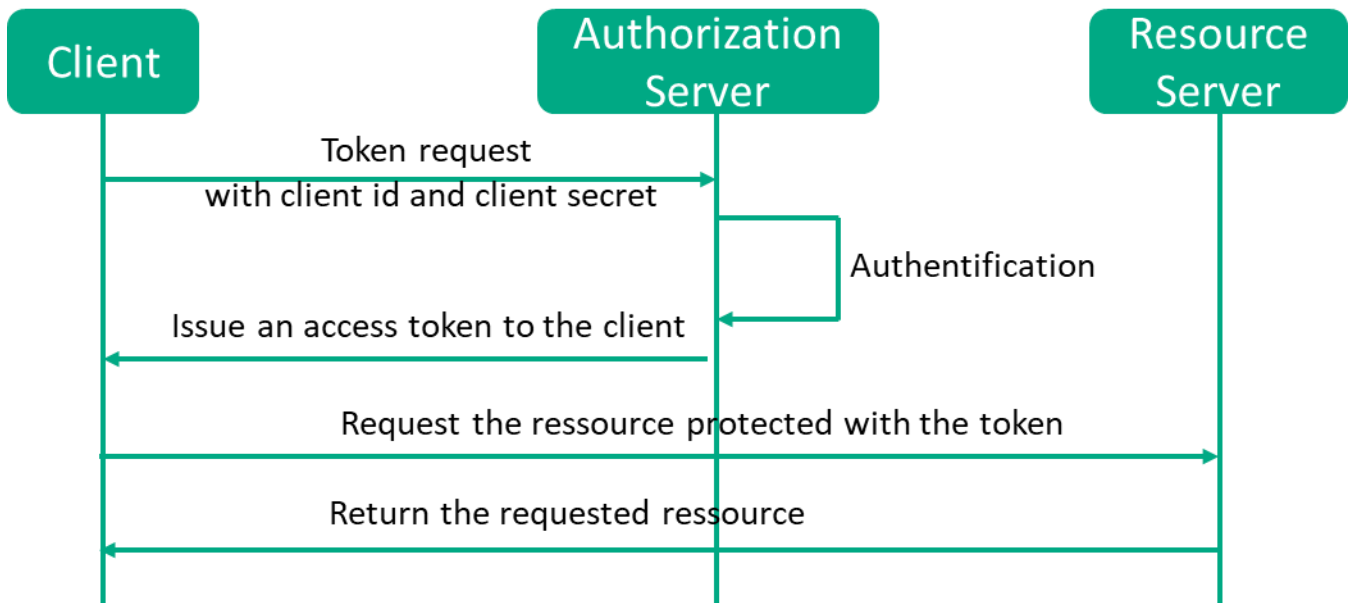
In order to access API service of Ingrid, you are invited to send an email with the name of your company and the contract code to your GRTgaz Account manager.

## 4. Technical support

For any questions regarding API calls and connectivity you can send an email to: [ingrid.connectivity.support@grtgaz.com](mailto:ingrid.connectivity.support@grtgaz.com)

## 5. Connection mode

The authorization mode implemented supports the OAuth 2.0 Authorization Framework client credentials type flow.



## 6. Access URLs

URLs to the authorization server to request a token:

Production environment : <https://auth-api.offre.grtgaz.com/oauth2/token>

Tests environment : <https://auth-api.offre-stg.grtgaz.com/oauth2/token>

URLs to access the API:

Production environment : <https://api.ingrid.grtgaz.com/>

Tests environment : <https://api.ingrid-stg.grtgaz.com>

## 7. Request to token endpoint

The access token request is done by the client application to the Authorization server.

```
POST /oauth2/token
```

### Request Parameters in Header

#### *Authorization*

The client application sends a `client_id` and a `client_secret` in the authorization header through Basic http authorization. The credentials are base64 encoded:  
`Base64Encode(client_id:client_secret)`.

#### *Content-Type*

'application/x-www-form-urlencoded' - Required

### Request Parameters in Body

#### *grant\_type*

'client\_credentials' - Required

#### *Scope*

Not used. Optional

Example to request an access token on the testing environment.

```
POST https://auth-api.offre-stg.grtgaz.com/oauth2/token
Content-Type='application/x-www-form-urlencoded' &
Authorization=Basic aSilk549iujendek32ouzsm
grant_type=client_credentials
```

Response from token endpoint :

```
HTTP/1.1 200 OK
Content-Type: application/json
{
  "access_token": "blablaxxx",
  "token_type": "Bearer",
  "expires_in": 7200
}
```

## 8. Ressource invocation

The client application presents the access token and then requets the resource server.  
In this part are shown only http HEADER required for the OAUTH request.

### Request Parameters in Header

#### *Authorization*

'<access\_token>'

#### *Content-Type*

'application/json'

## 9. Available API

The API that you can call are listed below:

- Portfolio of Services and Capacities
  - o upstream-allocated-capacities
  - o standardized-capacity-subscriptions
  - o downstream-allocated-capacities
  - o services
- Confirmation Notice
  - o confirmation-notice
- Operationnal Capacity Notice
  - o operational-notices
- Maintenance Schedule
  - o consolidated-maintenance-programs
- Measures
  - o supply-links
  - o pce-connection-links
  - o daily-measures
  - o hourly-measures
- Allocations
  - o daily-allocations
  - o hourly-allocations
  - o daily-imbalances
  - o daily-exceeding
  - o hourly-exceeding
- Balancing
  - o common-indicators
  - o daily-contractual-forecasts
  - o intraday-distributed-quantities
  - o hourly-allocations

# 10. Testing with Postman

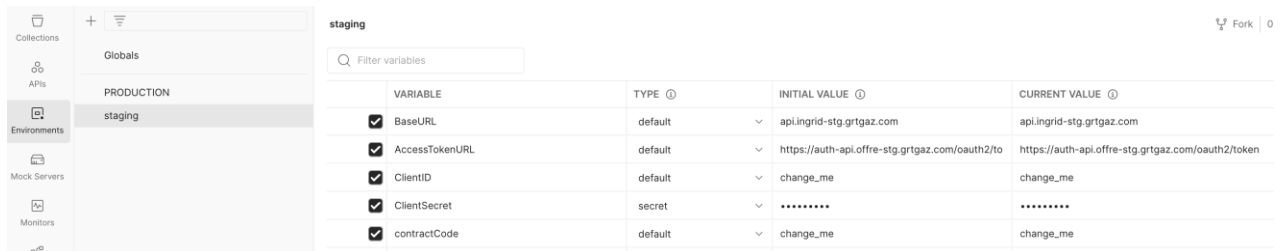
A Postman collection file is provided. With Postman you can easily call available API on the testing (Staging) and Production environment.

Step 1 : import the collection file in Postman and the environment files (staging and production)

Step 2 : For each environment fill the value for ClientID, ClientSecret and ContractCode. Don't forget to save.

ClientID and ClientSecret are provided to you by GRTgaz

ContractCode : your contract code



VARIABLE	TYPE	INITIAL VALUE	CURRENT VALUE
<input checked="" type="checkbox"/> BaseURL	default	api.ingrid-stg.grtgaz.com	api.ingrid-stg.grtgaz.com
<input checked="" type="checkbox"/> AccessTokenURL	default	https://auth-api.offre-stg.grtgaz.com/oauth2/to	https://auth-api.offre-stg.grtgaz.com/oauth2/token
<input checked="" type="checkbox"/> ClientID	default	change_me	change_me
<input checked="" type="checkbox"/> ClientSecret	secret	*****	*****
<input checked="" type="checkbox"/> contractCode	default	change_me	change_me

Step 3: From the Authorization tab press the Get New Access Token button.

You can now call Ingrid API.