



Lyntia's Quotation API

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API details

Quote API provides customers with a system-to-system integration to lyntia's quoting engine and generates an order in lyntia CRM system.

Method 0 (Carrier)

Provide carrier information mandatory to feeds the quotation Process (Method 1). Include Carrier Name, Carrier GUID and Address.

```
[
  {
    "cod_prov": 99,
    "codigo_uso": "cab9a0a7-5d77-e911-a84f-000d3a2a78db",
    "municipio": "New York Condado",
    "nombre": "60 Hudson New York"
  },
  {
    "cod_prov": 8,
    "codigo_uso": "cbb9a0a7-5d77-e911-a84f-000d3a2a78db",
    "municipio": "Barcelona",
    "nombre": "Acens Barcelona. Tarragona 161"
  },
  {
    "cod_prov": 28,
    "codigo_uso": "ccb9a0a7-5d77-e911-a84f-000d3a2a78db",
    "municipio": "Alcobendas",
    "nombre": "Acens Madrid. San Rafael 14"
  }
],
```

The request information is "codigo_uso" has to be populated within "Carrier" for the selected Carrier.

Method 1

Return Quotation and Offer Code based on Inputs provided by the buyer.

Terminology and Acronyms

This section defines the terms used in this document.

Input

| Term | Definition | Example/Options | Type |
|-----------------------------|-------------------------------------|--------------------------------------|---------|
| address | Requested address | Gran Via Street 1, Madrid | String |
| client | Client ID | API Manager user name | String |
| service ⁽¹⁾ | Service provided | Capacity, Internet | String |
| carrier | Carrier from Method 0 | ecc6a6a8-5d77-e911-a84c-000d3a2a711c | String |
| capacityMbps ⁽²⁾ | Speed (Mbps) | 100 | Integer |
| termMonths ⁽²⁾ | Term (months) | 36 | Integer |
| offNetOLO | The buyer allows offNetOLO services | True | Boolean |
| CIDR ⁽²⁾ | Subnet mask | 30 | Integer |
| RequestID | Buyer Request ID | XX-132456 | String |

Output

| Term | Definition | Options | Type |
|---------------|----------------------------------------|-----------------------|---------|
| endA | Normalized Google geocoding address | | String |
| coords | EndA Latitud, longitud and SRID | lat,long, SRID | Object |
| endB | Carrier address (From Method 1) | | String |
| capacityMbps | Speed | ANNEX I | Integer |
| termMonths | Term in months | ANNEX I | Integer |
| nrc | Non Recurrent Cost (€) | | Integer |
| mrc | Monthly Recurrent Cost (€) | | Integer |
| leadtime | Lead Tlme | number,unit | Object |
| service | Service provided | Capacity, Internet | String |
| CIDR | Subnet mask | 28, 29, 30 | Integer |
| country | endA Contry code | Based on ISO 3166-1 | Integer |
| provider | Service Provider | lyntia | String |
| lastMileProv | Lat mile Provider | Telefonica, lyntia... | String |
| channel | Service provided by | Fiber, Radio... | String |
| offerType | Offer type | Budgetary | String |
| requestID | Buyer Request ID | XX-132456 | String |
| offerCode | Lyntia's offer ID | OFE-XXXXXX | String |
| registryDate | Offer date registry | (dd/mm/aaa) | String |
| offerValidity | Offer validity period | number,unit | Object |
| notes | Extra information related to the offer | | String |

- (1) At the moment lyntia offer Capacity and Internet Service via Quotation API
- (2) In this case lyntia will identify the nearest value available within lyntia's product catalog.
 Either way in the ANNEX I you may find the current categories availables.

Example

Body

Type: applica_on/json;charset=UTF-8

```
{
  "address": "Gran Vía 39, Madrid",
  "client": "lyntia",
  "service": "capacidad",
  "carrier": "ecc6a6a8-5d77-e911-a84c-000d3a2a711c",
  "capacityMbps": 100,
  "termMonths": 36,
  "offNetOLO": true,
  "CIDR": 32,
  "offerCode": "XX-132456",
}
```

Response

```
{
  "endA": "Calle Gran Vía, 39, Madrid",
  "coords": {
    "lat": 40.420083,
```

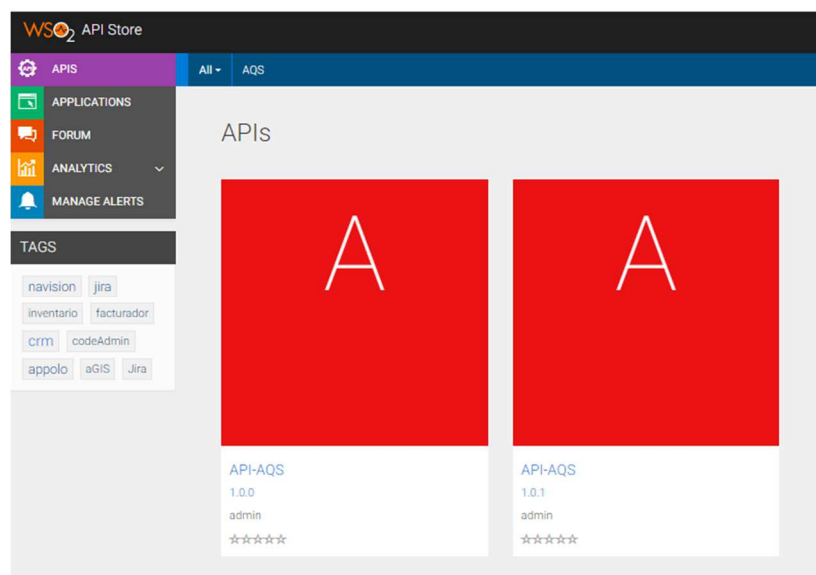
```

"lon": -3.705398,
"SRID": 4326
},
"endB": "Albasanz, 71, 28037 Madrid",
"capacityMbps": 512,
"termMonths": 12,
"nrc": 427,
"mrc": 427,
"leadTime": {
  "number": 12,
  "unit": "d"
},
"service": "capacidad",
"CIDR": 32,
"viability": true,
"country": 724,
"currency": "euro",
"provider": "lyntia",
"lastMileProv": "Telefónica",
"channel": "fibra",
"offerType": "budgetary",
"offerCode": "XXX",
"registryDate": "04/02/2020",
"offerValidity": {
  "number": 3,
  "unit": "m"
},
"notes": "VAT not included in the amounts indicated in the proposal. Prices and deadlines to be confirmed and conditioned to rethink."
}

```

API Manager

The service is provided via lyntia's API manager wherein all the resources are published, including pre-production environment for testing. At the moment there is two APIs published. The first one is only for connectivity test. The second one is a full version (susceptible to minor changes) , with Carrier Method included.



AQS Main API

GET /mrouting/api/aqs/v2/ Calcula Rutas y devuelve cotización

Devuelve unos precios según el estudio de cálculo de rutas y de los diferentes Business Cases tal como lo hace la herramienta AQS de la plataforma aGIS.

Parameters
Try it out

| Name | Description |
|--------------------------------|------------------------------------------------------------------|
| TOKEN_AUTH * required | |
| string (path) | |
| address * required | Dirección origen de autocotización |
| string (query) | |
| client * required | Número o ID de cliente asignado por Lyntia |
| integer (query) | |
| service * required | Tipo de producto a autocotizar |
| string (query) | |
| carrier * required | ID del carrier en formato 'xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx' |
| string (query) | |
| capacityMbps * required | Capacidad en formato 'Mbps' |
| integer (query) | |
| termMonths * required | Meses |
| integer (query) | |
| offNetOLO * required | Valoración con ORLA |
| boolean (query) | |
| CIDR * required | Máscara de IPs Públicas |
| integer (query) | |
| requestID * required | Código de Petición |
| string (query) | |

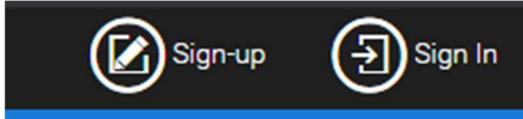
| Code | Description |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 200 | <div>Resultado de valoración</div> <div>Example Value Model</div> <pre>{ "endA": "Calle Gran Vía, 39, Madrid", "coords": { "lat": 40.420083, "lon": -3.705398, "SRID": 4326 }, "endB": "Albasanz, 71, 28037 Madrid", "capacityMbps": 512, "termMonths": 12, "mc": 427, "mrc": 427, "loadTime": { "number": 12, "unit": "d" }, "service": "capacidad", "CIDR": 32, "viability": true, "country": 704, "currency": "euro", "provider": "lyntia", "lastMileProv": "Telefónica", "channel": "fibra", "offerType": "fira", "offerCode": "XXX", "registryDate": "04/02/2020", "offerValidity": { "number": 3, "unit": "m" }, "notes": "VAT not included in the amounts indicated in the proposal. Prices and deadlines to be confirmed and conditioned to rethink." }</pre> |
| 400 | Parámetro de entrada incorrecto. |
| 403 | Sin permiso para consumir servicio. |
| 404 | Servicio no disponible. |

How to connect to API Manager

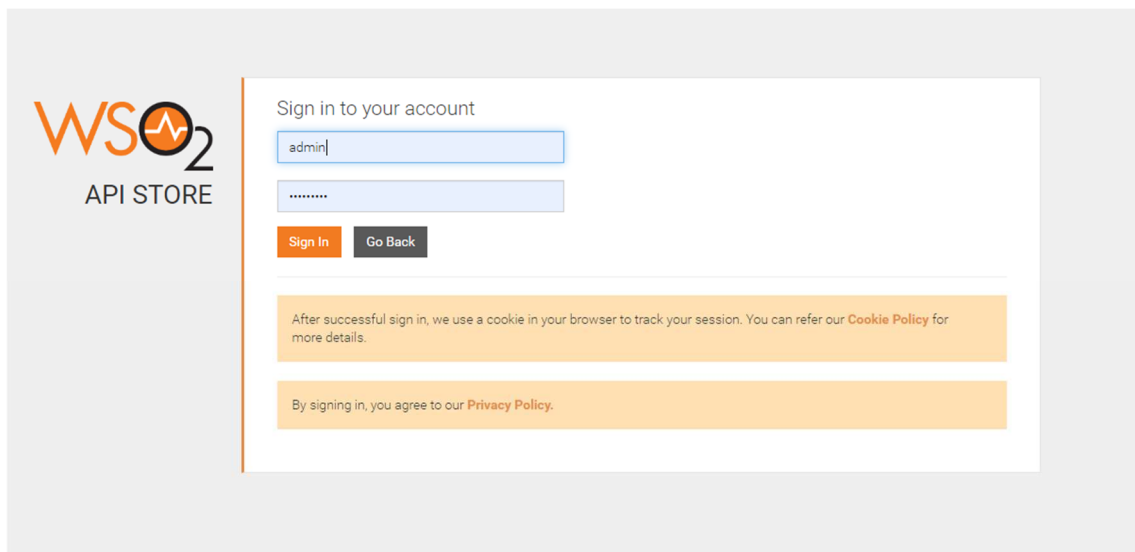
The API Manager implemented for Lyntia users is WSO2. To be able to see all APIs published in this API Manager, you have to connect to it using this URL:

<https://pre-apimanager.lyntia.com/store/>

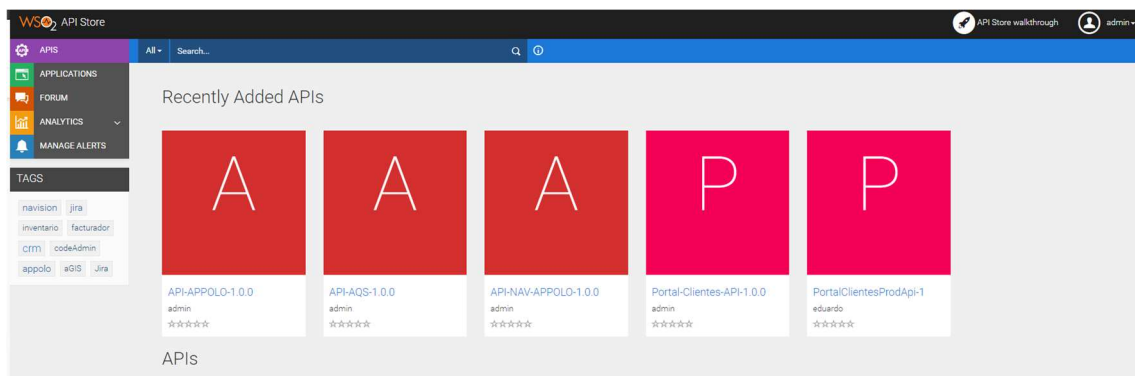
To see all the information (not only the public APIs) you have to connect to the API manager using the top menu, on the right.



There, you have to log in using your credentials:



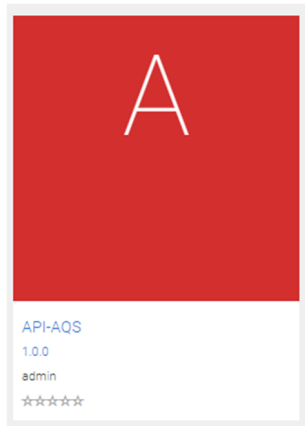
Once you are logged in you will see something similar like this:



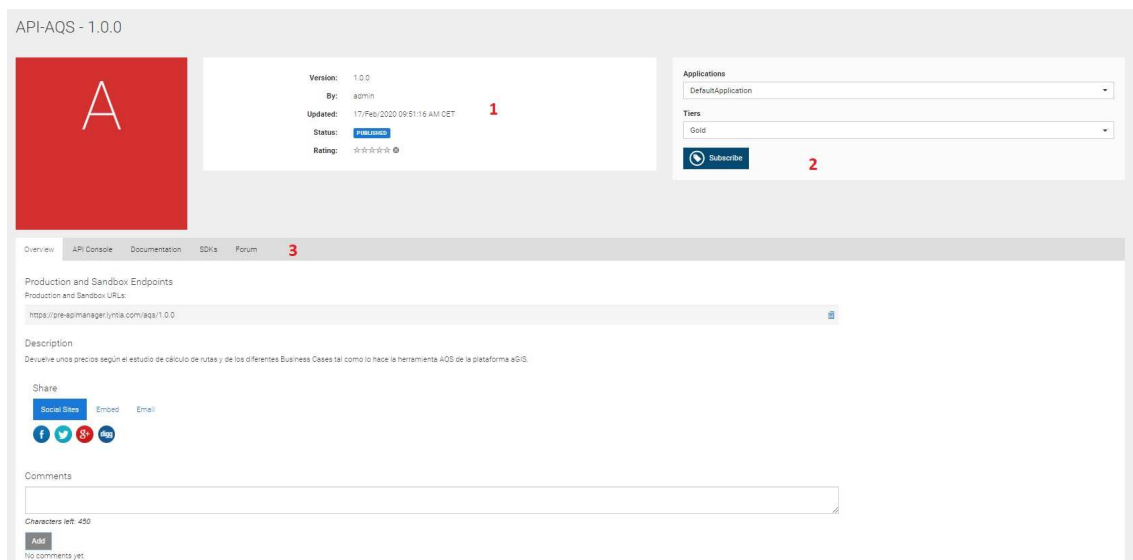
It's a kind of a store which includes all your API published with rights for the user which you logged in.

Get information from an API

Once you are connected to the API Manager, you can see more information about the API you want just clicking on the API icon. In this case, to see the information about AQS API, you have to click on this icon:



Inside it, a new menu appears which more options:



To explain better, I going to divide this image into sections:

1. **General Information about the API:** Information about version, status,...
2. **Application/Tiers:** The application that it's using this API and the level of the API
3. **More Information**

In the bottom of the page, we can see more than one section:

1. **Overview:** The main information in this sections is the Sanbox and Production URL
2. **API Console:** Here you can see a list of the endpoints defined for the API and the request header (for example: authorization bearer)
3. **Documentation:** All the documentation you attached to the API
4. **SDKs:** The API Manager gives you the option to download the SDK in different languages.
5. **Forum:** All topics about this API talked in the forum

Use Cases

In this section we document various use case scenarios (ANNEX II).

0. Success

Buyer sends the request with all the information required, including the desired Carrier picked from the Carrier list. Request_ID must be provided too. As a result, the API return all the information defined.

STAGE Address Validation (Carrier)

1. Error. Carrier not available

The Method is not giving back the Carrier information.

STAGE Client request information

2. Error. Web Service not available

The buyer sent the request. The seller's Web Service don't reply.

3. Error. Data validation

Buyer send all the data and seller process and validate it. As a result, the validation process find one or many unexpected information such us:

- Speed
- Term
- Carrier_ID
- Request_ID (missing)
- ...

4. Error. Address not found

The destination Address is process and normalized with Google Geocoding API. If the input address is not proper defined the API could return no matches from the Geocoding process. In this case the request can't be processed and throws an exception.

STAGE Quotation

5. Error. Lyntia's Web Service failure

Within the quotation process lyntia's makes some internal queries between their business applications. If these process fails, the quotation can't be done.

STAGE Offer registration process

6. Error. Offer not registered in lyntia's CRM

If the quotation process succeeds, the last step is the registration within the lyntia's CRM system, if the process fails the Offer is not registered and the process can't be completed.

7. Error. Quotation info is not delivered

The Offer is already registered within the CRM system, but the communication fails in the delivery process, and the response is not sent to the buyer

ANNEX I

Capacity catalog (capacityMbps)

| Name | Quantity |
|----------|----------|
| 1 Mbps | 1 |
| 2 Mbps | 2 |
| 3 Mbps | 3 |
| 5 Mbps | 5 |
| 10 Mbps | 10 |
| 20 Mbps | 20 |
| 30 Mbps | 30 |
| 40 Mbps | 40 |
| 50 Mbps | 50 |
| 60 Mbps | 60 |
| 70 Mbps | 70 |
| 80 Mbps | 80 |
| 90 Mbps | 90 |
| 100 Mbps | 100 |
| 200 Mbps | 200 |
| 300 Mbps | 300 |
| 400 Mbps | 400 |
| 500 Mbps | 500 |
| 600 Mbps | 600 |
| 700 Mbps | 700 |
| 800 Mbps | 800 |
| 900 Mbps | 900 |
| 1 Gbps | 1000 |
| 2 Gbps | 2000 |
| 2,5 Gbps | 2500 |
| 3 Gbps | 3000 |
| 4 Gbps | 4000 |
| 5 Gbps | 5000 |
| 6 Gbps | 6000 |
| 7 Gbps | 7000 |
| 8 Gbps | 8000 |
| 9 Gbps | 9000 |
| 10 Gbps | 10000 |
| 20 Gbps | 20000 |
| 30 Gbps | 30000 |
| 40 Gbps | 40000 |
| 50 Gbps | 50000 |
| 100 Gbps | 100000 |

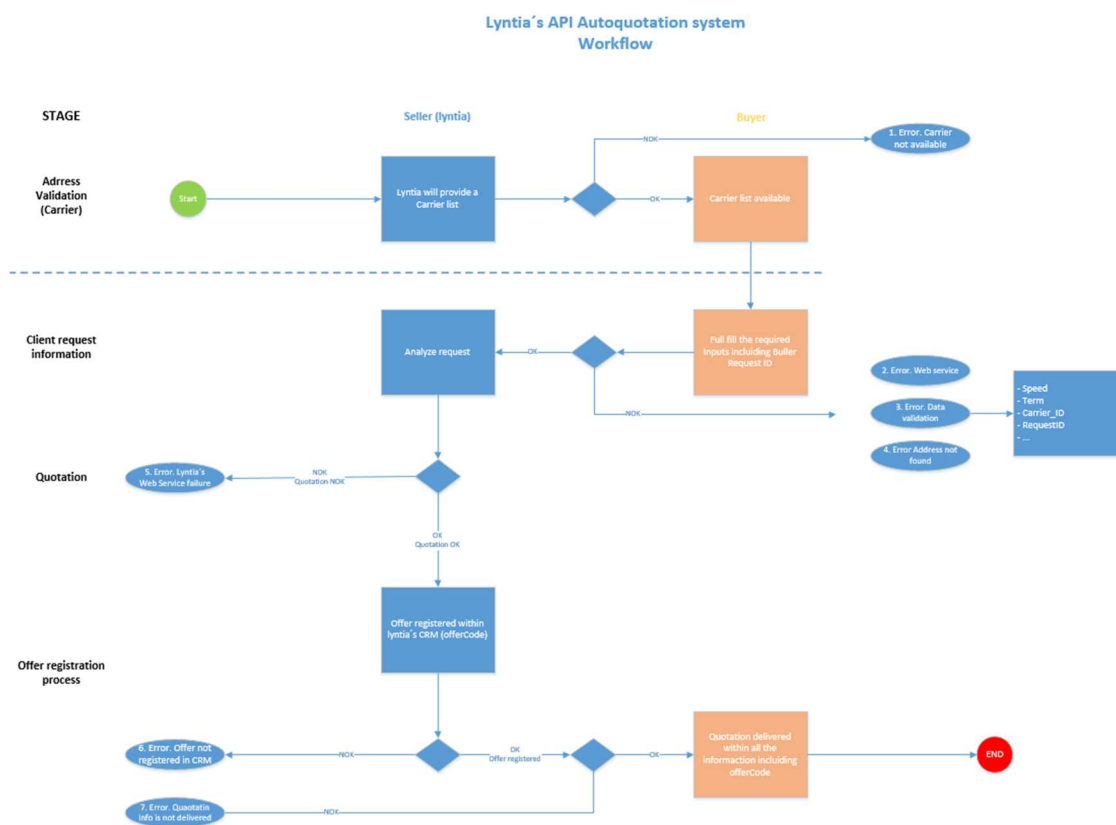
Term (termMonths)

| Name | Unit |
|------|--------|
| 12 | Months |
| 24 | Months |
| 36 | Months |
| 48 | Months |
| 60 | Months |

Internet/CIDR

| Definition | Units |
|-------------|-------|
| 1 IP | 28 |
| 2 IPs (/30) | 30 |
| 6 IPs (/29) | 29 |

ANNEX II



ANNEX III

API Error catalog

| Status | error_code | Error_msg | Description |
|--------|------------|-------------------------------------------|--------------------------------------------------------------------|
| 400 | AQS001 | Error within the input Data | Error within the input Data |
| 206 | AQS002 | Error in Google Geocoding response | Google Geocoding don't return a coherent response. Input not valid |
| 206 | AQS003 | Unclear Input address | Google GeoCoding return no results |
| 206 | AQS004 | Address out of Spain | `['country']['short_name']` != ES |
| 206 | AQS005 | Autoquotation System Internal Error | |
| 206 | AQS006 | Autoquotation System Internal Error | |
| 206 | AQS007 | Autoquotation System Internal Error | |
| 206 | AQS008 | Autoquotation System Internal Error | |
| 206 | AQS009 | Autoquotation System Internal Error | |
| 206 | AQS010 | Autoquotation System Internal Error | |
| 206 | PR001 | Fallo en la respuesta de Google Geocoding | Google Geocoding don't return a coherent response. Input not valid |
| 206 | PR002 | Autoquotation System Internal Error | |
| 206 | PR003 | Autoquotation System Internal Error | |
| 403 | - | - | Autentication Error. Invalid token |
| 404 | - | - | Webservice unavailable or <INPUT_DIR> <TOKEN_AUTH> invalid. |
| 206 | PR004 | Autoquotation System Internal Error | |
| 206 | PR005 | Unclear Input address | Google GeoCoding return no results |
| 206 | PR006 | Address out of Spain | `['country']['short_name']` != ES |