

AgoraFreight API

Getting a token:

To start working with the API, you need to get a client identifier (clientId) from AgoraFreight (please email us your request to support@agorafreight.com).

After that, you need to get an authorization token as follows:

POST <https://agorafreight.com/external/oauth/token>

```
Accept: application/json
Cache-Control: no-cache
Content-Type: application/x-www-form-urlencoded
Authorization: Basic {your clientId}

in Body:
grant_type=client_credentials
```

If the authorization data is correct and the connection is established, the response will come with the following content (HTTP 200)

```
{
  "access_token": "your token",
  "token_type": "bearer",
  "expires_in": 86399,
  "scope": "external",
  "jti": "your jti code"
}
```

If an incorrect username or password is sent (HTTP 401)

```
{
  "timestamp": 1585830391982,
  "status": 401,
  "error": "Unauthorized",
  "message": "Bad credentials",
  "path": "/oauth/token"
}
```

Other errors

```
{
  "error": "unsupported_grant_type",
  "error_description": "Unsupported grant type: client_credentials1"
}
```

An example of sending an API request.

Request for a list of cities:

```
GET https://agorafreight.com/external/api/v1/cities
Authorization: bearer {your token}
Cache-Control: no-cache
```

If successful an HTTP 200 response will be received.

In case of problems with the token an HTTP 401 response will be received with approximately the following content:

```
{
  "error": "invalid_token",
  "error_description": "Cannot convert access token to JSON"
}
```

List of Methods

The URL <http://agorafreight.com/external/api/v1/> is considered to be basic and is not specified further in the documentation.

GET **/cities** is a method that returns the cities in the system.

GET **/railway-stations** is a method that returns railway stations.

POST **/calculations** is a method that returns calculations for a given route.

Protocol Used

The request is to be made over the HTTP protocol.

The format for transferring incoming and outgoing data is JSON.

All fields of the JSON object in the request are obligatory unless otherwise noted.

Incoming parameters must be passed directly in the POST request as a JSON string.

Methods Description, Samples of Use

1. Cities in the system **/cities**

Each city description includes *externalId*, *name*, *region*, *country* where **externalId** - city ID in the system

name - city name in the system in English

region - region name in the system in English

country - country code

A sample of a GET /cities response is shown in Appendix 1.

2. Railway stations, in the system /railway-stations

Each railway station description includes *externalId*, *name*, *country*

externalId - ID of the railway station in the system

name - the name of the city, represented in the form of a directory, where the key is the code of the language, and the value is the name of the railway station

country - country code.

An example of a GET /railway-stations response is given in Appendix 2.

3. POST calculations, in the system /calculations

In the request body the following parameters are passed:

```
{
  "cargo": {
    "containers": [
      {
        "amount": 0,
        "type": "C20", // [C20, C40, C40HC]
        "weight": 0 // [kg] - kilogram
      }
    ],
    "generals": [
      {
        "amount": 0,
        "height": 0, // [m] - meter
        "length": 0, // [m] - meter
        "pallet": "IN_48x40", // [CM_120x80, CM_100x80]
        "type": "BOXES", // [BOXES, PALLETS]
        "weight": 0, // [kg] - kilogram
        "width": 0 // [m] - meter
      }
    ],
    "vehicle": {
      "bodyType": "REFRIGERATOR", // [REFRIGERATOR, TENT, TERM]
      "type": "T1_5" // [T1_5, T3, T5, T10, T20] in tons
    }
  },
  "fromLocation": {
    "airportCode": "string", // IATA code
    "cityId": 0, // API request
    "seaPortCode": "string", // Port code (for example, RULED)
    "stationId": 0 // API request
  },
  "shippingDate": "dd.mm.yyyy", [5] [PV6] [7] [PV8]
  "toLocation": {
    "airportCode": "string", // IATA code
    "cityId": 0, // API request
    "seaPortCode": "string", // Port code (for example, RULED)
    "stationId": 0 // API request
  }
}
```

One of the types of cargo must be indicated in the request.

For the starting and ending points, one of the options must be selected: airport, city, seaport or railway hub.

Description of the response:

```
{
  "code": 0,
  "data": [
    {
      "cost": {
        "currency": "string", //Total cost
        "value": 0
      },
      "nds": {
        "currency": "string", //VAT
        "value": 0
      },
      "pathParts": [
        //Transportation legs
        {
          "from": {
            "airportCode": "string", //IATA code
            "cityId": 0, //API request
            "seaPortCode": "string", //Port code(for example,
RULED)
            "stationId": 0 //API request
          },
          "serviceCategory": "string", //Type of service
          "services": [
            {
              "aviaCompany": "string", //Air Company name
              "seaLine": "string", //SeaLine name
              "service": "string" //Service name
            }
          ],
          "to": {
            "airportCode": "string", //IATA code
            "cityId": 0, //API request
            "seaPortCode": "string", //Port code(for example,
RULED)
            "stationId": 0 //API request
          },
          "transitTime": 0 //Leg transit time
        }
      ],
      "transitTime": 0 //All transit time
    }
  ],
  "message": "string",
  "status": "success"
}
```

The samples if requests and responses can be found in Appendix 3.

Appendix 1. GET /cities

298;Abakan;"Republic of Khakassia";RU
1644;Abilene;Texas;US
1127;Achinsk;"Krasnoyarsk Krai";RU
299;Adler;"Krasnodar Krai";RU
1351;Afipsky;"Krasnodar Krai";RU
1229;Aksarka;"Yamalo-Nenets Autonomous Okrug";RU
1641;Aksu;"Xinjiang Uygur Autonomous Region";CN
1540;Alagir;"Republic of North Ossetia-Alania";RU
1340;Aleksin;"Tula Oblast";RU
1336;Alexandroupoli;;GR
908;Alexeyevka;"Belgorod Oblast";RU
1077;Aleysk;"Altai Krai";RU
1658;Almaty;"Alma-Ata's Oblast";KZ
1225;Alupka;Crimea;RU
300;Alushta;Crimea;RU
406;Amderma;"Nenets Autonomous Okrug";RU
1182;Amsterdam;"North holland";NL

Appendix 2. GET /railway-stations

```
{
  "data": [
    {
      "externalId": 1468,
      "name": {
        "ru": "",
        "en": "Baziha"
      },
      "country": "RU"
    },
    {
      "externalId": 1490,
      "name": {
        "ru": "",
        "en": "Batareynaya"
      },
      "country": "RU"
    },
    ...
  ],
  "status": "success",
  "code": 200
}
```

Appendix 3. POST /calculations

The response contains the following parameters:

"cost" - total cost

"nds" - VAT

"transitTime" - time

"pathParts" - calculation elements

"from" - where from

"to" – where to

"serviceCategory" - service category

"services" – services

REQUEST

One container, 40, 15000 kg, Saint-Petersburg(city) - Moscow(city)

FLC transportation of 40' container, weighing 15,000 kg from St. Petersburg (city) to Moscow (city)

POST /api/v1/external/calculations

```
{
  "cargo": {
    "containers": [
      {
        "amount": 1,
        "type": "C40",
        "weight": 15000
      }
    ]
  },
  "fromLocation": {
    "cityId": 373
  },
  "shippingDate": "24.05.2019",
  "toLocation": {
    "cityId": 253
  }
}
```

RESPONSE

```
{
  "data": [
    {
      "cost": {
        "value": 774,
        "currency": "USD"
      },
      "nds": {
        "value": 42,
        "currency": "USD"
      },
      "transitTime": 16,
      "pathParts": [
        {
          "from": {
            "cityId": 373
          },
          "to": {
            "stationId": 1900
          },
          "transitTime": 0,
          "serviceCategory": "Transportation",
          "services": [
            {
              "service": "Cargo transportation"
            }
          ]
        }
      ],
      {
        "from": {
          "stationId": 1900
        },
        "to": {
          "stationId": 1338
        },
        "transitTime": 6,
        "serviceCategory": "Railway transportation",
        "services": [
          {
            "service": "Railway transportation"
          }
        ]
      },
      {
        "from": {
          "stationId": 1338
        },
        "to": {
          "cityId": 253
        },
        "transitTime": 10,
        "serviceCategory": "Transportation",
        "services": [
          {
            "service": "Cargo transportation"
          }
        ]
      }
    ]
  },
  "status": "success",
  "code": 200
}
```


REQUEST

One box, 1x1x1 m, 75 kg, Saint-Petersburg(city) - Moscow(city)

Transportation of 1 box of LCL, size1x1x1 m, weighing 75 kg from St. Petersburg (city) to Moscow (city)

```
{
  "cargo": {
    "generals": [
      {
        "amount": 1,
        "height": 1,
        "length": 1,
        "type": "BOXES",
        "weight": 75,
        "width": 1
      }
    ]
  },
  "fromLocation": {
    "cityId": 373
  },
  "shippingDate": "24.05.2019",
  "toLocation": {
    "cityId": 253
  }
}
```

RESPONSE

```
{
  "data": [
    {
      "cost": {
        "value": 739,
        "currency": "USD"
      },
      "nds": {
        "value": 107,
        "currency": "USD"
      },
      "transitTime": 4,
      "pathParts": [
        {
          "from": {
            "cityId": 373
          },
          "to": {
            "airportCode": "LED"
          },
          "transitTime": 0,
          "serviceCategory": "Transportation",
          "services": [
            {
              "service": "Cargo transportation"
            }
          ]
        }
      ]
    }
  ]
}
```

```

    "from": {
      "airportCode": "LED"
    },
    "to": {
      "airportCode": "LED"
    },
    "transitTime": 0,
    "serviceCategory": "Airport services",
    "services": [
      {
        "service": "Documentation fee"
      },
      {
        "service": "Terminal handling"
      }
    ]
  },
  {
    "from": {
      "airportCode": "LED"
    },
    "to": {
      "airportCode": "SVO-II"
    },
    "transitTime": 4,
    "serviceCategory": "Air transportation",
    "services": [
      {
        "service": "Air transportation"
      }
    ]
  },
  {
    "from": {
      "airportCode": "SVO-II"
    },
    "to": {
      "airportCode": "SVO-II"
    },
    "transitTime": 0,
    "serviceCategory": "Airport services",
    "services": [
      {
        "service": "Documentation fee"
      },
      {
        "service": "Terminal handling"
      }
    ]
  },
  {
    "from": {
      "airportCode": "SVO-II"
    },
    "to": {
      "cityId": 253
    },
    "transitTime": 0,
    "serviceCategory": "Transportation",
    "services": [
      {
        "service": "Cargo transportation"
      }
    ]
  }

```

```
    }
  ]
},
...
],
"status": "success",
"code": 200
}
```

REQUEST

One container, 40, 15000 kg, Dalian(city) - Moscow(city)

FLC transportation of 40' container weighing 15,000 kg from Dalian (city) to Moscow (city)

POST /api/v1/external/calculations

```
{
  "cargo": {
    "containers": [
      {
        "amount": 1,
        "type": "C40",
        "weight": 15000
      }
    ]
  },
  "fromLocation": {
    "cityId": 272
  },
  "shippingDate": "24.05.2019",
  "toLocation": {
    "cityId": 253
  }
}
```

RESPONSE

```
{
  "data": [
    {
      "cost": {
        "value": 1660,
        "currency": "USD"
      },
      "nds": {
        "value": 0,
        "currency": "USD"
      },
      "transitTime": 56,
      "pathParts": [
        {
```

```

    "from": {
      "cityId": 272
    },
    "to": {
      "seaPortCode": "CNDLC"
    },
    "transitTime": 0,
    "serviceCategory": "Transportation",
    "services": [
      {
        "service": "Cargo transportation"
      }
    ]
  },
  {
    "from": {
      "seaPortCode": "CNDLC"
    },
    "to": {
      "seaPortCode": "CNDLC"
    },
    "transitTime": 0,
    "serviceCategory": "Services in origin port",
    "services": [
      {
        "service": "OTHC services"
      },
      {
        "service": "DOC"
      },
      {
        "service": "Telex release"
      },
      {
        "service": "Seal fee"
      },
      {
        "service": "ENS"
      },
      {
        "service": "Export service"
      },
      {
        "service": "Port forwarding"
      }
    ]
  },
  {
    "from": {
      "seaPortCode": "CNDLC"
    },
    "to": {
      "seaPortCode": "FIKTK"
    },
    "transitTime": 54,
    "serviceCategory": "Freight",
    "services": [
      {
        "service": "Freight",
        "seaLine": "MAERSK"
      }
    ]
  }
]

```

```

    },
    {
      "from": {
        "seaPortCode": "FIKTK"
      },
      "to": {
        "seaPortCode": "FIKTK"
      },
      "transitTime": 0,
      "serviceCategory": "Services in destination port",
      "services": [
        {
          "service": "DTHC"
        },
        {
          "service": "Port forwarding"
        }
      ]
    },
    {
      "from": {
        "seaPortCode": "FIKTK"
      },
      "to": {
        "cityId": 253
      },
      "transitTime": 2,
      "serviceCategory": "Transportation",
      "services": [
        {
          "service": "Cargo transportation"
        }
      ]
    }
  ],
  "status": "success",
  "code": 200
}

```

REQUEST

One box, 1x1x1 m, 75 kg, Dalian(city) - Moscow(city)

LCL transportation of 1 box, size 1x1x1 m, weighing 75 kg from Dalian (city) to Moscow (city)

```

{
  "cargo": {
    "generals": [
      {
        "amount": 1,
        "height": 1,
        "length": 1,
        "type": "BOXES",
        "weight": 75,
        "width": 1
      }
    ]
  }
}

```

```

    }
  ]
},
"fromLocation": {
  "cityId": 272
},
"shippingDate": "24.05.2019",
"toLocation": {
  "cityId": 253
}
}
}

```

RESPONSE

```

{
  "data": [
    {
      "cost": {
        "value": 974,
        "currency": "USD"
      },
      "nds": {
        "value": 10,
        "currency": "USD"
      },
      "transitTime": 56,
      "pathParts": [
        {
          "from": {
            "cityId": 272
          },
          "to": {
            "seaPortCode": "CNDLC"
          },
          "transitTime": 0,
          "serviceCategory": "Transportation",
          "services": [
            {
              "service": "Cargo transportation"
            }
          ]
        },
        {
          "from": {
            "seaPortCode": "CNDLC"
          },
          "to": {
            "seaPortCode": "CNDLC"
          },
          "transitTime": 0,
          "serviceCategory": "Services in origin port",
          "services": [
            {
              "service": "VGM"
            },
            {
              "service": "OTHC services"
            }
          ]
        }
      ]
    }
  ]
}

```

```

        {
            "service": "DOC"
        },
        {
            "service": "Customs clearance charge"
        },
        {
            "service": "ENS"
        },
        {
            "service": "Telex release"
        },
        {
            "service": "Solas admin"
        },
        {
            "service": "Lift On Lift Off / HDL"
        },
        {
            "service": "Port forwarding"
        }
    ]
},
{
    "from": {
        "seaPortCode": "CNDLC"
    },
    "to": {
        "seaPortCode": "RULED"
    },
    "transitTime": 54,
    "serviceCategory": "Freight",
    "services": [
        {
            "service": "Freight",
            "seaLine": "CMA CGM Log"
        }
    ]
},
{
    "from": {
        "seaPortCode": "RULED"
    },
    "to": {
        "seaPortCode": "RULED"
    },
    "transitTime": 0,
    "serviceCategory": "Services in destination port",
    "services": [
        {
            "service": "Port forwarding"
        },
        {
            "service": "VGM"
        },
        {
            "service": "DTHC"
        },
        {
            "service": "DOC"
        }
    ]
}

```

```
        "service": "ISPS local"
      }
    ]
  },
  {
    "from": {
      "seaPortCode": "RULED"
    },
    "to": {
      "cityId": 373
    },
    "transitTime": 0,
    "serviceCategory": "Transportation",
    "services": [
      {
        "service": "Cargo transportation"
      }
    ]
  },
  {
    "from": {
      "cityId": 373
    },
    "to": {
      "cityId": 253
    },
    "transitTime": 2,
    "serviceCategory": "Transportation",
    "services": [
      {
        "service": "Cargo transportation"
      }
    ]
  },
  {
    "from": {
      "cityId": 253
    },
    "to": {
      "cityId": 253
    },
    "transitTime": 0,
    "serviceCategory": "Transportation",
    "services": [
      {
        "service": "Cargo transportation"
      }
    ]
  }
]
},
"status": "success",
"code": 200
}
```


REQUEST

One container, 40, 15000 kg, New-York(city) - Moscow(city)

FLC transportation of 40' container, weighing 15,000 kg from New York (city) to Moscow (city)

POST /api/v1/external/calculations

```
{
  "cargo": {
    "containers": [
      {
        "amount": 1,
        "type": "C40",
        "weight": 15000
      }
    ]
  },
  "fromLocation": {
    "cityId": 1571
  },
  "shippingDate": "24.05.2019",
  "toLocation": {
    "cityId": 253
  }
}
```

RESPONSE

```
{
  "data": [
    {
      "cost": {
        "value": 4213,
        "currency": "USD"
      },
      "nds": {
        "value": 179,
        "currency": "USD"
      },
      "transitTime": 36,
      "pathParts": [
        {
          "from": {
            "cityId": 1571
          },
          "to": {
            "cityId": 1571
          },
          "transitTime": 2,
          "serviceCategory": "Origin charges",
          "services": [
            {
              "service": "Chassis fee"
            },
            {
              "service": "VGM"
            }
          ]
        }
      ]
    }
  ]
}
```

```
        "service": "Document fee"
      }
    ]
  },
  {
    "from": {
      "cityId": 1571
    },
    "to": {
      "seaPortCode": "RULED"
    },
    "transitTime": 30,
    "serviceCategory": "Truck + Sea freight",
    "services": [
      {
        "service": "Truck + Sea freight"
      }
    ]
  },
  {
    "from": {
      "seaPortCode": "RULED"
    },
    "to": {
      "seaPortCode": "RULED"
    },
    "transitTime": 2,
    "serviceCategory": "Services in destination port",
    "services": [
      {
        "service": "DTHC"
      },
      {
        "service": "Import service"
      }
    ]
  },
  {
    "from": {
      "cityId": 373
    },
    "to": {
      "cityId": 253
    },
    "transitTime": 2,
    "serviceCategory": "Transportation",
    "services": [
      {
        "service": "Cargo transportation"
      }
    ]
  }
]
},
"status": "success",
"code": 200
}
```