

API Agora Freight

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
```

HTML

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"
}
```

JSON

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

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

JSON

Other errors

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

JSON

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
```

HTML

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"  
}
```

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": [
      {
```



```
2235;Aasbüttel;"Schleswig-Holstein";DE;54.0662094;9.4388586
1898;Aba;Sichuan;CN;31.899413;102.224653
298;Abakan;"Republic of Khakassia";RU;53.72917175292969;91.46118927001953
12623;"Abano Terme";Veneto;IT;45.3587173;11.7882998
1510;Abay;"Altai Republic";RU;50.39552699999999;85.11344099999997
20210;Abaza;"Republic of Khakassia";RU;52.6225919;90.0794098
12624;"Abbadia Lariana";Lombardy;IT;45.8948976;9.3363419
2236;Abbenrode;"Saxony-Anhalt";DE;51.9264747;10.6283858
15224;Abbeystead;England;GB;53.983885;-2.672538
12625;Abbiategrosso;Lombardy;IT;45.39905230000001;8.916555299999999
15225;"Abbots Bromley";England;GB;52.81800200000001;-1.882179
15226;"Abbots Langley";England;GB;51.707275;-0.4183259
15227;"Abbots Morton";England;GB;52.19190099999999;-1.958272
15228;Abbotsbury;England;GB;50.6655598;-2.5995788
21558;Abbotsford;"British Columbia";CA;49.0504377;-122.3044697
.....
```

HTML

Appendix 2. GET /railway-stations

```
{
  "data": [
    {
      "externalId": 10209,
      "name": {
        "ru": "АВТОВО",
        "en": "Avtovo"
      },
      "country": "RU"
    },
    {
      "externalId": 22745,
      "name": {
        "en": "Aktau",
        "ru": "Актау"
      },
      "country": "KZ"
    },
    {
      "externalId": 22762,
      "name": {
```

```

        "en": "Alamedin",
        "ru": "Аламедин"
    },
    "country": "KG"
},
{
    "externalId": 23307,
    "name": {
        "en": "Alashankou",
        "ru": "Алашанькоу"
    },
    "country": "CN"
},
{
    "externalId": 21084,
    "name": {
        "ru": "Алма-Аты1",
        "en": "Alma-Aty"
    },
    "country": "KZ"
},
.....
]
}

```

JSON

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": "01.02.2022",
  "toLocation": {
    "cityId": 253
  }
}
```

JSON

RESPONSE

```
{
  "data": [
    {
      "cost": {
        "value": 823.0,
        "currency": "USD"
      },
      "nds": {
        "value": 0.0,
        "currency": "USD"
      },
      "transitTime": 2,
      "pathParts": [
```

```

    {
      "from": {
        "cityId": 373
      },
      "to": {
        "cityId": 253
      },
      "transitTime": 2,
      "serviceCategory": "Transportation",
      "cost": {
        "value": 723.0,
        "currency": "USD"
      },
      "services": [
        {
          "service": "Cargo transportation",
          "cost": {
            "value": 723.0,
            "currency": "USD"
          }
        }
      ]
    }
  ],
},
{
  "cost": {
    "value": 905.0,
    "currency": "USD"
  },
  "nds": {
    "value": 24.0,
    "currency": "USD"
  },
  "transitTime": 4,
  "pathParts": [
    {
      "from": {
        "cityId": 373
      },
      "to": {
        "stationId": 10209
      },
    }
  ]
}

```



```
"transitTime": 0,
"serviceCategory": "Transportation",
"cost": {
  "value": 368.0,
  "currency": "USD"
},
"services": [
  {
    "service": "Cargo transportation",
    "cost": {
      "value": 226.0,
      "currency": "USD"
    }
  },
  {
    "service": "Cargo transportation",
    "cost": {
      "value": 142.0,
      "currency": "USD"
    }
  }
]
},
{
  "from": {
    "stationId": 10209
  },
  "to": {
    "stationId": 20723
  },
  "transitTime": 3,
  "serviceCategory": "Railway transportation",
  "cost": {
    "value": 388.0,
    "currency": "USD"
  },
  "services": [
    {
      "service": "Railway transportation",
      "cost": {
        "value": 388.0,
        "currency": "USD"
      }
    }
  ]
}
```

```

    }
  ]
},
{
  "from": {
    "stationId": 20723
  },
  "to": {
    "cityId": 253
  },
  "transitTime": 1,
  "serviceCategory": "Transportation",
  "cost": {
    "value": 0.0,
    "currency": "USD"
  },
  "services": [
    {
      "service": "Cargo transportation",
      "cost": {
        "value": 0.0,
        "currency": "USD"
      }
    }
  ]
}
]
}
],
"status": "success",
"code": 200
}

```

JSON

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": "01.02.2022",
"toLocation": {
  "cityId": 253
}
}
```

JSON

RESPONSE

```
{
  "data": [
    {
      "cost": {
        "value": 136.0,
        "currency": "USD"
      },
      "nds": {
        "value": 10.0,
        "currency": "USD"
      },
      "transitTime": 2,
      "pathParts": [
        {
          "from": {
            "cityId": 373
          },
          "to": {
```

```
        "cityId": 373
    },
    "transitTime": 0,
    "serviceCategory": "Transportation",
    "cost": {
        "value": 13.0,
        "currency": "USD"
    },
    "services": [
        {
            "service": "Cargo transportation",
            "cost": {
                "value": 13.0,
                "currency": "USD"
            }
        }
    ]
},
{
    "from": {
        "cityId": 373
    },
    "to": {
        "cityId": 253
    },
    "transitTime": 2,
    "serviceCategory": "Transportation",
    "cost": {
        "value": 30.0,
        "currency": "USD"
    },
    "services": [
        {
            "service": "Cargo transportation",
            "cost": {
                "value": 30.0,
                "currency": "USD"
            }
        }
    ]
},
{
    "from": {
```

```

        "cityId": 253
    },
    "to": {
        "cityId": 253
    },
    "transitTime": 0,
    "serviceCategory": "Transportation",
    "cost": {
        "value": 16.0,
        "currency": "USD"
    },
    "services": [
        {
            "service": "Cargo transportation",
            "cost": {
                "value": 16.0,
                "currency": "USD"
            }
        }
    ]
},
{
    "cost": {
        "value": 23.0,
        "currency": "USD"
    },
    "nds": {
        "value": 0.0,
        "currency": "USD"
    },
    "transitTime": 2,
    "pathParts": [
        {
            "from": {
                "cityId": 373
            },
            "to": {
                "cityId": 253
            },
            "transitTime": 2,
            "serviceCategory": "Express transportation",

```



```
        "cost": {
            "value": 50.0,
            "currency": "USD"
        }
    }
]
},
],
"status": "success",
"code": 200
}
```

JSON

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": "01.02.2022",
  "toLocation": {
    "cityId": 253
  }
}
```

JSON

RESPONSE

```
{
  "data": [
    {
      "cost": {
        "value": 12774.0,
        "currency": "USD"
      },
      "nds": {
        "value": 0.0,
        "currency": "USD"
      },
      "transitTime": 26,
      "pathParts": [
        {
          "from": {
            "cityId": 272
          },
          "to": {
            "seaPortCode": "CNDLC"
          },
          "transitTime": 0,
          "serviceCategory": "Transportation",
          "cost": {
            "value": 0.0,
            "currency": "USD"
          },
          "services": [
            {
              "service": "Cargo transportation",
              "cost": {
                "value": 0.0,
                "currency": "USD"
              }
            }
          ]
        },
        {
          "from": {
            "seaPortCode": "CNDLC"
          },

```



```
"to": {
  "seaPortCode": "CNDLC"
},
"transitTime": 2,
"serviceCategory": "Services in origin port",
"cost": {
  "value": 50.0,
  "currency": "USD"
},
"services": [
  {
    "service": "Port forwarding",
    "cost": {
      "value": 50.0,
      "currency": "USD"
    }
  },
  {
    "service": "OTHC",
    "cost": {
      "value": 0.0,
      "currency": "USD"
    }
  }
]
},
{
  "from": {
    "seaPortCode": "CNDLC"
  },
  "to": {
    "seaPortCode": "RUVVO"
  },
  "transitTime": 7,
  "serviceCategory": "Freight",
  "cost": {
    "value": 8700.0,
    "currency": "USD"
  },
  "services": [
    {
      "service": "Freight",
      "seaLine": "SINOKOR",
```

```
        "cost": {
            "value": 8700.0,
            "currency": "USD"
        }
    ]
},
{
    "from": {
        "seaPortCode": "RUVV0"
    },
    "to": {
        "seaPortCode": "RUVV0"
    },
    "transitTime": 2,
    "serviceCategory": "Services in destination port",
    "cost": {
        "value": 39.0,
        "currency": "USD"
    },
    "services": [
        {
            "service": "Port forwarding",
            "cost": {
                "value": 39.0,
                "currency": "USD"
            }
        }
    ]
},
{
    "from": {
        "stationId": 1927
    },
    "to": {
        "stationId": 1335
    },
    "transitTime": 15,
    "serviceCategory": "Railway transportation",
    "cost": {
        "value": 3008.0,
        "currency": "USD"
    },
}
```

```
    "services": [
      {
        "service": "Railway transportation",
        "cost": {
          "value": 3008.0,
          "currency": "USD"
        }
      }
    ]
  },
  {
    "from": {
      "stationId": 1335
    },
    "to": {
      "cityId": 253
    },
    "transitTime": 0,
    "serviceCategory": "Transportation",
    "cost": {
      "value": 278.0,
      "currency": "USD"
    },
    "services": [
      {
        "service": "Cargo transportation",
        "cost": {
          "value": 278.0,
          "currency": "USD"
        }
      }
    ]
  }
],
{
  "cost": {
    "value": 18037.0,
    "currency": "USD"
  },
  "nds": {
    "value": 0.0,
    "currency": "USD"
  }
}
```

```
},
"transitTime": 46,
"pathParts": [
  {
    "from": {
      "cityId": 272
    },
    "to": {
      "seaPortCode": "CNDLC"
    },
    "transitTime": 0,
    "serviceCategory": "Transportation",
    "cost": {
      "value": 0.0,
      "currency": "USD"
    },
    "services": [
      {
        "service": "Cargo transportation",
        "cost": {
          "value": 0.0,
          "currency": "USD"
        }
      }
    ]
  },
  {
    "from": {
      "seaPortCode": "CNDLC"
    },
    "to": {
      "seaPortCode": "CNDLC"
    },
    "transitTime": 0,
    "serviceCategory": "Services in origin port",
    "cost": {
      "value": 50.0,
      "currency": "USD"
    },
    "services": [
      {
        "service": "Port forwarding",
        "cost": {
```

```
        "value": 50.0,
        "currency": "USD"
    }
},
{
    "service": "OTHC",
    "cost": {
        "value": 0.0,
        "currency": "USD"
    }
}
]
},
{
    "from": {
        "seaPortCode": "CNDLC"
    },
    "to": {
        "seaPortCode": "RULED"
    },
    "transitTime": 44,
    "serviceCategory": "Freight",
    "cost": {
        "value": 16400.0,
        "currency": "USD"
    },
    "services": [
        {
            "service": "Freight",
            "seaLine": "CMA",
            "cost": {
                "value": 14800.0,
                "currency": "USD"
            }
        }
    ]
},
{
    "from": {
        "seaPortCode": "RULED"
    },
    "to": {
        "seaPortCode": "RULED"
    }
}
```

```
    },
    "transitTime": 0,
    "serviceCategory": "Services in destination port",
    "cost": {
      "value": 164.0,
      "currency": "USD"
    },
    "services": [
      {
        "service": "Port forwarding",
        "cost": {
          "value": 39.0,
          "currency": "USD"
        }
      },
      {
        "service": "Release fee",
        "cost": {
          "value": 120.0,
          "currency": "USD"
        }
      },
      {
        "service": "Container inspection fee",
        "cost": {
          "value": 5.0,
          "currency": "USD"
        }
      }
    ]
  },
  {
    "from": {
      "seaPortCode": "RULED"
    },
    "to": {
      "cityId": 253
    },
    "transitTime": 2,
    "serviceCategory": "Transportation",
    "cost": {
      "value": 723.0,
      "currency": "USD"
    }
  }
}
```

```

    },
    "services": [
      {
        "service": "Cargo transportation",
        "cost": {
          "value": 723.0,
          "currency": "USD"
        }
      }
    ]
  }
],
"status": "success",
"code": 200
}

```

JSON

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": "01.02.2022",

```

```
"toLocation": {
  "cityId": 253
}
}
```

JSON

RESPONSE

```
{
  "data": [
    {
      "cost": {
        "value": 782.0,
        "currency": "USD"
      },
      "nds": {
        "value": 10.0,
        "currency": "USD"
      },
      "transitTime": 56,
      "pathParts": [
        {
          "from": {
            "cityId": 272
          },
          "to": {
            "seaPortCode": "CNNKG"
          },
          "transitTime": 5,
          "serviceCategory": "Transportation",
          "cost": {
            "value": 39.0,
            "currency": "USD"
          },
          "services": [
            {
              "service": "Cargo transportation",
              "cost": {
                "value": 39.0,
                "currency": "USD"
              }
            }
          ]
        }
      ]
    }
  ]
}
```



```

    }
  ]
},
{
  "from": {
    "seaPortCode": "CNNKG"
  },
  "to": {
    "seaPortCode": "CNNKG"
  },
  "transitTime": 0,
  "serviceCategory": "Services in origin port",
  "cost": {
    "value": 50.0,
    "currency": "USD"
  },
  "services": [
    {
      "service": "Port forwarding",
      "cost": {
        "value": 50.0,
        "currency": "USD"
      }
    },
    {
      "service": "OTHC",
      "cost": {
        "value": 0.0,
        "currency": "USD"
      }
    }
  ]
},
{
  "from": {
    "seaPortCode": "CNNKG"
  },
  "to": {
    "seaPortCode": "RULED"
  },
  "transitTime": 49,
  "serviceCategory": "Freight",
  "cost": {

```

```
        "value": 311.0,
        "currency": "USD"
    },
    "services": [
        {
            "service": "Freight",
            "seaLine": "F.S.Mackenzie",
            "cost": {
                "value": 311.0,
                "currency": "USD"
            }
        }
    ]
},
{
    "from": {
        "seaPortCode": "RULED"
    },
    "to": {
        "seaPortCode": "RULED"
    },
    "transitTime": 0,
    "serviceCategory": "Services in destination port",
    "cost": {
        "value": 106.0,
        "currency": "USD"
    },
    "services": [
        {
            "service": "Port forwarding",
            "cost": {
                "value": 46.0,
                "currency": "USD"
            }
        },
        {
            "service": "DOC",
            "cost": {
                "value": 60.0,
                "currency": "USD"
            }
        }
    ]
}
```

```
    },
    {
      "from": {
        "seaPortCode": "RULED"
      },
      "to": {
        "cityId": 373
      },
      "transitTime": 0,
      "serviceCategory": "Transportation",
      "cost": {
        "value": 13.0,
        "currency": "USD"
      },
      "services": [
        {
          "service": "Cargo transportation",
          "cost": {
            "value": 13.0,
            "currency": "USD"
          }
        }
      ]
    },
    {
      "from": {
        "cityId": 373
      },
      "to": {
        "cityId": 253
      },
      "transitTime": 2,
      "serviceCategory": "Transportation",
      "cost": {
        "value": 30.0,
        "currency": "USD"
      },
      "services": [
        {
          "service": "Cargo transportation",
          "cost": {
            "value": 30.0,
            "currency": "USD"
          }
        }
      ]
    }
  ]
}
```

```

    }
  }
]
},
{
  "from": {
    "cityId": 253
  },
  "to": {
    "cityId": 253
  },
  "transitTime": 0,
  "serviceCategory": "Transportation",
  "cost": {
    "value": 16.0,
    "currency": "USD"
  },
  "services": [
    {
      "service": "Cargo transportation",
      "cost": {
        "value": 16.0,
        "currency": "USD"
      }
    }
  ]
}
],
"status": "success",
"code": 200
}

```

JSON

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)

```
{
  "cargo": {
    "containers": [
      {
        "amount": 1,
        "type": "C40",
        "weight": 15000
      }
    ]
  },
  "fromLocation": {
    "cityId": 1571
  },
  "shippingDate": "01.02.2022",
  "toLocation": {
    "cityId": 253
  }
}
```

JSON

RESPONSE

```
{
  "data": [
    {
      "cost": {
        "value": 9802.0,
        "currency": "USD"
      },
      "nds": {
        "value": 0.0,
        "currency": "USD"
      },
      "transitTime": 35,
      "pathParts": [
        {
          "from": {
            "cityId": 1571
          },
          "to": {
```

```
        "cityId": 373
    },
    "transitTime": 1,
    "serviceCategory": "Cargo transportation",
    "cost": {
        "value": 2252.0,
        "currency": "USD"
    },
    "services": [
        {
            "service": "Transfer to port",
            "cost": {
                "value": 2252.0,
                "currency": "USD"
            }
        }
    ]
},
{
    "from": {
        "cityId": 1571
    },
    "to": {
        "cityId": 373
    },
    "transitTime": 30,
    "serviceCategory": "Truck + Sea freight",
    "cost": {
        "value": 5657.0,
        "currency": "USD"
    },
    "services": [
        {
            "service": "Freight",
            "cost": {
                "value": 5657.0,
                "currency": "USD"
            }
        }
    ]
},
{
    "from": {
```

```
        "seaPortCode": "RULED"
    },
    "to": {
        "seaPortCode": "RULED"
    },
    "transitTime": 2,
    "serviceCategory": "Services in destination port",
    "cost": {
        "value": 470.0,
        "currency": "USD"
    },
    "services": [
        {
            "service": "DTHC",
            "cost": {
                "value": 350.0,
                "currency": "USD"
            }
        },
        {
            "service": "Import service",
            "cost": {
                "value": 120.0,
                "currency": "USD"
            }
        }
    ]
},
{
    "from": {
        "cityId": 373
    },
    "to": {
        "cityId": 253
    },
    "transitTime": 2,
    "serviceCategory": "Transportation",
    "cost": {
        "value": 723.0,
        "currency": "USD"
    },
    "services": [
        {
```

```
    "service": "Cargo transportation",
    "cost": {
      "value": 723.0,
      "currency": "USD"
    }
  ]
}
],
"status": "success",
"code": 200
}
```

JSON