

VariFlight

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API docs

Flight Happiness Index V2.1

Offering rich and accurate data, to enhance passengers' decision-making and flight experience.

produced by

VariFlight

With a vision of "living on time" , a
global leading aviation data intelligence
company

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2.1

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This documentation is Intended to provide developers with a comprehensive understanding of our API endpoints, methods, requests, and responses, enabling them to effectively access data provided by Variflight.

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Introduction

This document describes how to use the Flight Happiness API, version 2.0.

It offers data related to flight experience, such as in-flight amenities, Wi-Fi, meals, and on-flight pictures to help passengers make informed travel decisions.

Authentication

The interface uses both token and IP for concurrent verification.

Token generation algorithm:

In the URL, all request parameters (excluding the token) are sorted in ascending order by KEY, the parameter names are connected in lowercase with the '&' symbol, then connected with the value of the **Registration code**, and then encrypted twice using MD5 (32-bit lowercase) encryption.

Registration code: Please obtain the registration code from the administrator of VariFlight. It is necessary for verification during the request process by both parties. Please be careful not to disclose it to the public.

Example (PHP):

```
ksort($data);
    foreach($data as $k=>$v){
        $strtomd5[]=$k.'='.$v;
    }
    $token= md5(md5(implode('&',$strtomd5).$appsecurity));
```

Note: \$appsecurity=Registration code

API Endpoints

The base URL for all requests is:

```
https://open-al.variflight.com/api/happiness?
```

The way to request: **GET**

The format of return: **JSON**

The API supports three types of queries:

1. **Flight number + Flight date** (Query a specific flight)
2. **Departure&Arrival airport IATA code + Flight date** (Query all flights on a certain route)
3. **Departure&Arrival city IATA code + Flight date** (Query all flights between specified cities)

Query 1 : Flight number + Flight date

Request parameters:

fnum	: Flight number
date	: Flight date
lang	: language (English = en)
appid	: Appid (Obtain from your sales)
token	: Token

Example URL:

```
http://open-al.variflight.com/api/happiness?fnum=MU521&date=2024-08-28&appid=10176&lang=en&token=$token
```

How to spell token:

Step1 : Input parameters

fnum=MU521&date=2024-08-28&appid=10176&lang=en

Step2: Encrypted string with lower case parameters sort

\$str= 'fnum=MU521&date=2024-08-28&appid=10176&lang=en'

Step3: Use Registration code

\$appsecurity= '56934765683fc'

Step4: Spell token

token=md5(md5(\$str.\$appsecurity))

In this example, token= 6a8f68378faa71dff1d4b9f363fcea1b

Note: '.' symbol is the connectors in PHP

Query 2 : Departure&Arrival airport IATA code + Flight date

Request parameters:

dep : Departure airport IATA code

arr : Arrival airport IATA code

date : Flight date

lang : language (English = en)

appid : Appid (Obtain from your sales)

token : Token

Example URL:

```
http://open-al.variflight.com/api/happiness?dep=PVG&arr=NRT&date=2024-08-28&appid=10176&lang=en&token=$token
```

How to spell token:

Step1 : Input parameters

dep=PVG&arr=NRT&date=2024-08-28&appid=10176&lang=en

Step2: Encrypted string with lower case parameters sort

```
$str= 'dep=PVG&arr=NRT&date=2024-08-28&appid=10176&lang=en'
```

Step3: Use Registration code

```
$appsecurity= '56934765683fc'
```

Step4: Spell token

```
token=md5(md5($str.$appsecurity))
```

In this example, token= 90c5cb2b5869afc140263f806fc87d2e

Note: '.' symbol is the connectors in PHP

Query 3 : Departure&Arrival city IATA code + Flight date

Request parameters:

- `depCity` : Departure city IATA code
- `arrCity` : Arrival city IATA code
- `date` : Flight date
- `lang` : language (English = en)
- `appid` : Appid (Obtain from your sales)
- `token` : Token

Example URL:

```
http://open-al.variflight.com/api/happiness?depCity=DEL&arrCity=LON&date=2025-01-12&appid=10176&lang=en&token=$token
```

How to spell token:

Step1: Input parameters

```
depCity=DEL&arrCity=LON&date=2025-01-12&appid=10176&lang=en
```

Step2: Encrypted string with lower case parameters sort

```
$str= 'depCity=DEL&arrCity=LON&date=2025-01-12&appid=10176&lang=en'
```

Step3: Use Registration code

```
$appsecurity= '56934765683fc'
```

Step4: Spell token

```
token=md5(md5($str.$appsecurity))
```

In this example, token= b8b7fdfa489a871b756588cc89d2577c

Note: '.' symbol is the connectors in PHP

Error Responses

Return parameter	Description
1	Wait for auditing
2	The visiting ip have not been joined in White List
3	Lack of parameters or parameter identification failed
4	No data permissions
10	No data
11	Unknown error

Return Parameter Examples

Example 1: Failed return

```
{
  error_code: 3,
  error: " wrong departure city format "
}
```

Example 2: Successful return

```
[
  {
    FlightYear: "1.7",
    AircraftNumber: "B32D0",
    FlightNo: "MU521",
    FlightDate: "2024-08-28",
    FlightDepcode: "PVG",
    FlightArrcode: "NRT",
    DepAvgDelaytime: "53",
    ArrAvgDelaytime: "11",
    PlanAvgFlytime: "254",
    CancelProb: "3%",
    FoodCode: "M",
    Food: "Yes",
    DepBridge: "100.00%",
    ArrBridge: " ",
    AirService: "Three-star ",
    ArrService: "Four-star ",
    DepService: "Three-star ",
    OntimeRate: "30%",
    ArrOntimeRate: "77%",
    Generic: "359",
```

```

GenericNew: "A350",
FtypeDetail: "A350-900",
FlightTopic: {
    pic:
"https://file.variflight.com/buckets/happiness\_theme\_pic\_750x282/keys/MU\_A350-900.png"
    desc: " ",
    },
HistoryGeneric: "#359|88.89%|3.3#77W|3.70%|7.1#333|7.41%|6.4",
distance: "1788",
aircraftDescribe: "The Airbus A350-900 features a number of technologies developed and applied for the A380, as well as production innovations. A350 uses a lot of light composite materials such as carbon fiber reinforced plastic (CFRP) and aluminum-lithium alloys. The A350's wings will be mainly made of CFRP, using the most advanced design and manufacturing technology and integrating the A380's slat drop technology. Slightly larger than the A350-800, the standard three-class passenger cabin layout can accommodate up to 300 passengers and the range can reach 7,500 nautical miles (13,900 kilometers).",
IsInt: "1",
CabinPic:
"https://file.variflight.com/buckets/comfort\_flayout/keys/fb5413e528061e2546420be8142fb1e1.png",
Luggage: "Carry-on baggage
Domestic flight:
First customers are allowed 2 personal item, each within 10kg , and the volume cannot exceed 55 x 40 x 20 cm
Business customers are allowed 1 personal item, each within 10kg , and the volume cannot exceed 55 x 40 x 20 cm
Economy customers are allowed 1 personal item, each within 10kg, and the volume cannot exceed 55 x 40 x 20 cm",

```

```
Seatlayout: "3-3-3",
Cabin: "Y",
FoodArray: [ ],
SeatSpace: "30.71",
SeatWidth: "18.11",
SeatTilt: "110",
Media: "On Demand",
Socket: "Yes",
WiFi: "NEED TO APPLY",
shareFlightNo: [
    "FM3039",
    "JL9568"
]
}
]
```

Return Parameter Details

Return parameter	Description
FlightYear	Historical average aircraft age
AircraftNumber	Aircraft registration number
FlightNo	Flight number
FlightDate	Flight date (Year-Month-Day)
FlightDepcode	Departure airport IATA code
FlightArrcode	Arrival airport IATA code
DepAvgDelaytime	Average departure delay time over the past 180 days (in minutes)
ArrAvgDelaytime	Average arrival delay time over the past 180 days (in minutes, Positive numbers represent delays, negative numbers represent early arrivals)
PlanAvgFlytime	Average scheduled flight time over the past 180 days (in minutes)
CancelProb	Flight cancellation rate for the past 180 days
FoodCode	The meaning of food code: B: Breakfast C: Beverage D: Dinner L: Lunch M: Meals S: Snack N: No meals
Food	Meal availability on the flight (Yes or No)
AirService	Airline service level of FHI
ArrService	Arrival airport service level of FHI

DepService	Departure airport service level of FHI
OntimeRate	Historical departure punctuality rate over the past 180 days
ArrOntimeRate	Historical Arrival punctuality rate over the past 180 days
Generic	Aircraft code (eg:359)
FtypeDetail	Aircraft Model (eg:A350-900)
FlightTopic	Theme of the flight
pic	Side view of the airplane
desc	Description of the themed livery (if applicable)
distance	Flight distance (in km)
aircraftDescribe	Description of the operating aircraft model
IsInt	Flight category(Domestic flights in China:0, International flights:1)
CabinPic	Seat map pictures
Luggage	The allowance for free luggage
Seatlayout	Seat layout
Cabin	Cabin class P: Premium First Class F,U: First Class C,J,S,O: Business Class R,W,S,G: Premium Economy Y: Economy Class
SeatSpace	Seat pitch (in inches)
Seatwidth	Seat width (in inches)
SeatTilt	Maximum seat tilt (in degrees)
Media	Onboard entertainment facilities, including:

	live TV, On demand, BYO, Overhead, BYO(Streaming), Random, DIRECTV, Personal TV, On Demand/Overhead, Loop, drop down screen, PMP, PAD, No
Socket	Onboard power, including: Yes, No, Power + USB, USB, Maybe
WiFi	Onboard WiFi, including: Yes, No, Maybe, NEED TO APPLY
ShareFlightNo	Share flight number