

**VariFlight**

<https://www.variflight.com/en>

Email: [business@variflight.com](mailto:business@variflight.com)

Address: VariFlight Pte. Ltd.

75 High Street

Singapore 179435



# API docs

## Customized Flight Status Push API V3.0

Subscribe to a specific flight, receive real-time flight change updates.

produced by

**VariFlight**

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

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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 the Variflight Customized Flight Status Push API.

Based on the user's subscription to flights departing on the current day or in the future, Variflight will push the latest flight status data to the specified receiving address.

The entire document is divided into two parts:

**Part 1** Introduces how to subscribe to a specific flight.

**Part 2** Presents examples of the pushed data.

## Part 1: Subscription Guide

### Subscription Request URL

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

The way to request: **GET**

The format of return: **JSON**

### Request Parameter Details

**fnum** : Flight number

**dep** : Departure airport IATA code

**arr** : Arrival airport IATA code

**date** : Flight date, yyyy-mm-dd

**lang** : Language, 'en' = English

**appid** : Appid (Obtain from your sales)

**token** : Token

**fid** : (optional) Up to 20-character alphanumeric flight ID used to identify flights when pushing real-time data updates to users, can be empty.

## Request Rules

To use the flight status push API, a full request including flight number, segment, and date is necessary.

Customization is limited to flights departing on or after the current day. A receiving address for push notifications must be provided to VariFlight.

'fid' is an optional identifier used to distinguish flights. If the 'fid' value is not null, duplicates will be determined based on the fid. This means that the same flight can be customized multiple times if 'fid' is not null. When 'fid' is null, duplicates will be determined based on the actual flight information.

## 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

Example request URL:

```
http://open-al.variflight.com/api/addflightpush?fnum=GX8915&dep=HAK&arr=YIH&date=2024-09-11&lang=en&appid=10176&token=$token
```

How to spell token:

**Step1: Input parameters**

```
fnum=GX8915&dep=HAK&arr=YIH&date=2024-09-11&lang=en&appid=10176
```

**Step2: Encrypted string with lower case parameters sort**

```
$str='fnum=GX8915&dep=HAK&arr=YIH&date=2024-09-11&lang=en&appid=10176'
```

**Step3: Use Registration code**

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

**Step4: Spell token**

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

In this example, token= 5a2db3c65b0b6d09546ac35f88c087bb

**Note:** '.' symbol is the connectors in PHP

## Example of Return Parameter

Successful subscription:

```
{
  error_code: 8,
  error: " successful customization ",
  FlightDeptimePlanDate: " 2024-09-11 08:45:00 ",
  FlightArrtimePlanDate: " 2024-09-11 11:10:00 "
}
```

Failed subscription:

```
{  
  error_code: 3,  
  error: " wrong date format "  
}
```

## Return Parameter Explanation

Return parameter	Explanation
error_code	Subscription status code
error	Subscription status details
FlightDeptimePlanDate	Scheduled departure time (yyyy-mm-dd hh:mm:ss)
FlightArrtimePlanDate	Scheduled arrival time (yyyy-mm-dd hh:mm:ss)

## Error\_code & Error

error_code	error
8	"successful customization"
1	User of waiting for auditing
2	The visiting ip have not been joined in white list
3	Lack of parameters or parameter identification failed
10	No data
0	User does not exist
5	No satisfied flight
6	Cannot subscribe repeatedly
7	Fail to push the subscription
4	No data permissions or pushing link does not exist

## Part 2: Data Push

### Data Push Description

After successfully subscribing to a flight, Variflight automatically pushes customized flight status changes to the user's specified address in a data stream via **POST**.

The Chinese characters in the interface response need to be URL-decoded.

**All flight times are in local time of the flight's departure airport.**

( The fid is a flight identification string submitted by the user during customization.)

The way to request: **POST**

The format of return: **JSON**

### Data Push Example

```
{
  fcategory: "0",
  fservice: "J",
  FirstClassCheckinTable: "1,2",
  BusinessCheckinTable: "1,2",
  FlightNo: "GX8915",
  FlightCompany: "Guangxi Beibu Gulf Airlines",
  FlightDepcode: "HAK",
```

FlightArrcode: "URC",  
AircraftNumber: "B306R",  
FlightDeptimePlanDate: "2024-09-11 08:45:00",  
FlightArrtimePlanDate: "2024-09-11 16:20:00",  
FFlightDeptimePlanDate: "2024-09-11 08:45:00",  
FFlightArrtimePlanDate: "2024-09-11 16:20:00",  
FlightDeptimeReadyDate: " ",  
FlightArrtimeReadyDate: " ",  
  
FlightDeptimeDate: " ",  
FlightArrtimeDate: " ",  
FlightIngateTime: " ",  
FlightOutgateTime: " ",  
CheckinTable: "3-16",  
CheckDoor: "gate 4",  
BoardGate: " ",  
ReachExit: " ",  
BaggageID: " ",  
BoardState: " ",  
FlightState: "schedule",  
FlightHTerminal: "T1",  
FlightTerminal: "T2",  
org\_timezone: "28800",  
dst\_timezone: "28800",  
ShareFlightNo: " ",  
StopFlag: "0",  
ShareFlag: "0",  
VirtualFlag: "0",  
BoardGateTime: "0",

ArrStandGate: " ",  
DepStandGate: " ",  
DelayReason: " ",  
LegFlag: "0",  
Food: "N",  
LastCheckinTime: "2024-09-11 08:05:00",  
EstimateBoardingStartTime: " ",  
EstimateBoardingEndTime: " ",  
TodayTimeRate: " ",  
FlightDep: "Haikou",  
FlightArr: "Yichang",  
deptel: "0898-966114",  
arrtel: "07178-6532315",  
airlinetel: "95370",  
FlightWaitData: 0,  
bridge: " ",  
arr\_bridge: " ",  
FlightDepAirport: "Haikou Meilan",  
FlightArrAirport: "Yichang Sanxia",  
OntimeRate: "100.00%",  
generic: "Airbus A320-251N",  
FlightYear: 5.5,  
ArrOntimeRate: "100.00%",  
FlightDuration: "115",  
distance: "1333",  
FastestExitDuration: 28.4,  
SlowestExitDuration: "45.4",  
FastestExitTime: " "

```
SlowestExitTime: " ",
Changeplane: "0",
VeryZhunReadyDeptimeDate: "2024-09-11 08:45:00",
VeryZhunReadyArrtimeDate: "2024-09-11 10:40:00",
AssistFlightState: "schedule",
DepAirportLat: "19.941612",
DepAirportLon: "110.45717",
DepTerminalLat: "19.944524",
DepTerminalLon: "110.468636",
ArrAirportLat: "30.549934",
ArrAirportLon: "111.478935",
ArrTerminalLat: "30.55392",
ArrTerminalLon: "111.491772",
FlightStateNum: 0,
StopAirportCode: " ",
StopCity: " ",
fid: "a2014090511012"
}
```

## Push Parameter Explanation

Push parameter	Explanation
FlightNo	Flight number
FlightCompany	Airline name
FlightDepcode	Departure airport IATA code

FlightArrcode	Arrival airport IATA code
FlightDeptimePlanDate	Scheduled departure time (yyyy-mm-dd hh:mm:ss)
FlightArrtimePlanDate	Scheduled arrival time (yyyy-mm-dd hh:mm:ss)
FlightDeptimeReadyDate	Estimated departure time (yyyy-mm-dd hh:mm:ss)
FlightArrtimeReadyDate	Estimated arrival time (yyyy-mm-dd hh:mm:ss)
FlightDeptimeDate	Actual departure time (yyyy-mm-dd hh:mm:ss)
FlightArrtimeDate	Actual arrival time (yyyy-mm-dd hh:mm:ss)
FlightIngateTime	On-block actual time (yyyy-mm-dd hh:mm:ss)
FlightOutgateTime	Off-block actual time (yyyy-mm-dd hh:mm:ss)
stopFlag	Stop flag 0: non-stop 1: one stop n: number of stops
shareFlag	Code share flight 0: non-share flight 1: share flight
LegFlag	Segment flag 0: plan segment 1: alternated segment 2: returned segment
ShareFlightNo	Code share flight number (actual carriage flight number)
CheckinTable	Check-in counter
BoardGate	Boarding gate
BaggageID	Baggage turntable
BoardState	Boarding status (check-in, check-in closed, boarding, last call, gate

	closed)
FlightState	Flight status (schedule/delay/cancel/diversion/return/departure/arrival /diverted flight departure/diverted flight cancel/diverted flight arrival/returned flight departure/returned flight cancel/returned flight arrival/cancel in advance
FlightHTerminal	Terminal-departure
FlightTerminal	Terminal-arrival
FlightDep	Departure city name
FlightArr	Arrival city name
FlightDepAirport	Departure airport name
FlightArrAirport	Arrival airport name
alternate_info	Diversion information
AlternateStatus	Diverted flight status
AlternateDepCity	Diverted departure airport name
AlternateArrCity	Diverted arrival airport name
AlternateArrtimePlan	Diverted departure airport code
AlternateDeptimePlan	Diverted arrival airport code
AlternateArrtime	Diverted scheduled departure time (yyyy-mm-dd hh-mm-ss)
AlternateDeptime	Diverted scheduled arrival time (yyyy-mm-dd hh-mm-ss)
org_timezone	Time zone of origin (Unit: /second, divide by 3600 to convert to UTC timezone, e.g., 28800 is UTC+8)
dst_timezone	Time zone of destination (Unit: /second, divide by 3600 to convert to UTC

	timezone, e.g., 28800 is UTC+8)
fid	Return original data delivering by users
OntimeRate	Departure historical punctuality rate
ArrOntimeRate	Arrival historical punctuality rate
deptel	Telephone number of departure airport
arrtel	Telephone number of arrival airport
airlinetel	Telephone number of airline
generic	Aircraft type
FlightYear	Aircraft age
FlightDuration	Duration of flight (unit: minutes)
distance	Flight mileage (unit: km)
DepAirportLat	Latitude of departure airport
DepAirportLon	Longitude of departure airport
DepTerminalLat	Latitude of departure airport terminal
DepTerminalLon	Longitude of departure airport terminal
ArrAirportLat	Latitude of arrival airport
ArrAirportLon	Longitude of arrival airport
ArrTerminalLat	Latitude of arrival airport terminal
ArrTerminalLon	Longitude of arrival airport terminal
StopAirportCode	Stopover airport code
StopCity	Stopover city name