

BBT Taxi Fleet Data API

API Documentation

Big Boss Taxi Co., Limited

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Document History

Version	Date	Author	Description
1.0	2026-03-26	Gary Law	Initial document
1.1	2026-06-09	Gary Law	Updated endpoints to support GET and POST
1.2	2026-06-24	Gary Law	Revised document for OpenData (data.gov.hk) API content

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Overview

This API provides real-time taxi fleet location and status data for OpenData (data.gov.hk):

- **OpenData (data.gov.hk)** — simplified public schema

All data endpoints accept HTTP GET or POST and return JSON. No authentication is required from API consumers.

Base URL

Production:

```
https://data.bigboss.hk
```

Example endpoint URLs:

- `https://data.bigboss.hk/api/opendata/get_data/`
-

Authentication

This API does **not** require authentication. There are no API keys, tokens, or credentials to obtain or manage. Any HTTP client can call the endpoints directly by GET or POST. For POST requests with a JSON body, use Content-Type: application/json. GET requests use query parameters where required. Endpoints that take no request body (the "all vehicles" endpoints) do not require any headers at all.

Example — minimal request with no authentication:

```
GET https://data.bigboss.hk/api/opendata/get_data/all
POST https://data.bigboss.hk/api/opendata/get_data/all
# No Authorization header required
```

Rate limiting is enforced per IP address (see **Rate Limits**). No other access controls apply.

Quick Reference

Endpoint	Consumer	Description	Rate Limit
GET or POST /api/opendata/get_data/all	OpenData	All vehicles, simplified schema	60 req/min
GET or POST /api/opendata/get_data/	OpenData	Vehicles within radius, simplified schema	60 req/min

Rate Limits

Rate limiting is applied **per IP address**. Limits are configured per deployment; production uses:

Consumer	Limit
OpenData (/api/opendata/)	60 requests per minute

When the limit is exceeded, the API returns:

```
HTTP 429 Too Many Requests
```

Data Freshness and Upstream Updates

The service periodically pulls fleet state from the upstream fleet system and writes it to the database. The pull interval is set by deployment configuration (`FETCH_INTERVAL`, default **10 seconds**). That interval bounds how soon new upstream data can appear in stored records before the next API response is built.

OpenData API

These endpoints return the **simplified public schema**. Raw GPS device data, signal metrics, speed, and direction are omitted.

Get All Vehicles

```
GET https://data.bigboss.hk/api/opendata/get_data/all
POST https://data.bigboss.hk/api/opendata/get_data/all
```

Returns data for every vehicle in the fleet. No request body or query parameters are required.

REQUEST (GET or POST)

```
GET https://data.bigboss.hk/api/opendata/get_data/all

POST https://data.bigboss.hk/api/opendata/get_data/all
Content-Type: application/json
```

RESPONSE

```
{
  "taxis": [
    {
      "veh_id": "BBT013050630",
      "taxi_type": "P",
      "passenger_cap": 5,
      "lat": 22.291563,
      "long": 114.301471,
      "time_stamp": "2024-11-20T08:33:19+08:00",
      "op_status": "V"
    }
  ]
}
```

Get Vehicles Within Radius

```
GET
https://data.bigboss.hk/api/opendata/get_data/?lat=22.291563&long=114.301471&range=1000
POST https://data.bigboss.hk/api/opendata/get_data/
```

Returns only vehicles within a specified distance from a given coordinate.

PARAMETERS (POST JSON body or GET query parameters)

Field	Type	Required	Description
lat	float	Yes	Latitude in decimal degrees (WGS84)
long	float	Yes	Longitude in decimal degrees (WGS84)
range	integer	No	Search radius in metres. Default: 2000 (2 km)

```
{
  "lat": 22.291563,
  "long": 114.301471,
  "range": 1000
}
```

RESPONSE

```
{
  "taxis": [
    {
      "veh_id": "BBT013050630",
      "taxi_type": "P",
      "passenger_cap": 5,
      "lat": 22.291563,
      "long": 114.301471,
      "time_stamp": "2024-11-20T08:33:19+08:00",
      "op_status": "V"
    }
  ]
}
```

Response Field Reference

OpenData Schema Fields

Field	Type	Unit	Description
veh_id	string	—	Daily-regenerated vehicle identifier (format: BBT + 9 digits)
taxi_type	string	—	Taxi category. See Taxi Types
passenger_cap	integer	seats	Maximum passenger capacity
lat	float	degrees	Server-corrected latitude (WGS84, 6 decimal places)
long	float	degrees	Server-corrected longitude (WGS84, 6 decimal places)
time_stamp	string	ISO 8601	Server-side timestamp of the data record
op_status	string	—	Operating status. See Operating Status

Enumerated Values

Taxi Types

Value	Meaning
O	Ordinary taxi
P	Premium taxi
W	Wheelchair-accessible taxi

Operating Status

Value	Meaning
V	Vacant — available for hire
O	Occupied — carrying a passenger
N	Out of service

Vehicle ID Privacy

The `veh_id` field **does not correspond** to a real vehicle registration or fixed identifier. It is regenerated daily using a seeded random number:

- **Format:** 3-character fleet prefix + 9 random digits (e.g. BBT013050630)
- The same physical vehicle gets the same `veh_id` within a single calendar day
- At midnight, all `veh_id` values are reassigned to new random numbers

This means `veh_id` values **cannot be used to track a vehicle across days**.

Examples

cURL

Get all vehicles (OpenData) — GET and POST

```
curl https://data.bigboss.hk/api/opendata/get_data/all

curl -X POST https://data.bigboss.hk/api/opendata/get_data/all \
-H "Content-Type: application/json"
```

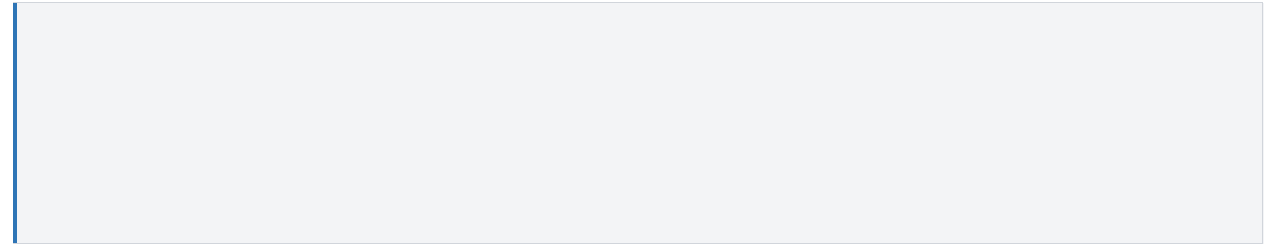
Error Responses

HTTP Status	Cause
422 Unprocessable Entity	POST body is malformed or missing required fields; or GET is missing required query parameters (lat, long)
429 Too Many Requests	Rate limit exceeded for your IP address
500 Internal Server Error	Unexpected server-side error

Example 422 Responses

```
{
  "detail": [
    {
      "type": "missing",
      "loc": ["body", "lat"],
      "msg": "Field required"
    }
  ]
}

{
  "detail": [
    {
      "type": "missing",
      "loc": ["query", "lat"],
      "msg": "Field required"
    }
  ]
}
```



Example 429 Response

```
HTTP/1.1 429 Too Many Requests
```