



“Next Bus” arrival time API  
of  
Citybus Limited  
and  
New World First Bus Services Limited

**Data Dictionary**

Version 1.0

July 2019

### Amendment History

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1.0	Initial Version	July 2019	DA Division, OGCI ITD & OSD, CTB & NWFB

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## 1. Introduction:

This is the Data Dictionary of a RESTful API which returns result in JSON format. The API provides static information of Citybus and New World First Bus (Citybus & NWFB) such as bus routes, bus stops and their locations and also estimated bus arrival time (ETA) of bus stops on specific route. This Data Dictionary provides the detail information of the data fields involved such as name, type and description.

## 2. Data Dictionary

Below is the list of data fields of main tables involved in the API

### 2.1 Company

Data Field	Data Type	Description	Definition (if applicable)	Example
type	String	The corresponding API that returns the data.	The value will always be “Company”.	"type": "Company"
version	String	The version number of the JSON returned.	The version number in major and minor versioning format.	"version": "1.0"
generated_timestamp	String	The timestamp of the initial generated time of the response before it is cached.	Date time with time zone in ISO 8601 format.	"generated_timestamp": "2019-06-04T11:27:24+08:00"
data	Object	The object that of the data requested.	The object consists of the following fields: <ul style="list-style-type: none"> <li>co</li> <li>name_en</li> <li>name_tc</li> <li>name_sc</li> <li>url</li> <li>data_timestamp</li> </ul>	"data": { "co": "CTB", "name_tc": "城巴有限公司", "name_en": "Citybus Limited", "name_sc": "城巴有限公司", "url": "http://www.citybus.com.hk", "data_timestamp": "2019-04-26T15:28:00+08:00"

				}  Note: Empty data object denotes data not found.
co	String	The company code of a bus company.	The valid company codes are: <ul style="list-style-type: none"> <li>• CTB for Citybus Limited</li> <li>• NWFB for New World First Bus Services Limited</li> </ul>	"co": "CTB"
name_en	String	Bus company name, in English.		"name_en": "Citybus Limited"
name_tc	String	Bus company name, in Traditional Chinese.		"name_tc": "城巴有限公司"
name_sc	String	Bus company name, in Simplified Chinese.		"name_sc": "城巴有限公司"
url	String	Web URL of the bus company web site.		"url": "http://www.citybus.com.hk"
data_timestamp	String	The timestamp of the data when it was initially prepared from the origin server.	Date time with time zone in ISO 8601 format.	"data_timestamp": "2019-04-26T15:28:00+08:00"

## 2.2 Route

Data Field	Data Type	Description	Definition (if applicable)	Example
type	String	The corresponding API that returns the data.	The value will always be “Route”.	"type": "Route"
version	String	The version number of the JSON returned.	The version number in major and minor versioning format.	"version": "1.0"
generated_timestamp	String	The timestamp of the initial generated time of the response before it is cached.	Date time with time zone in ISO 8601 format.	"generated_timestamp": "2019-06-04T11:27:24+08:00"
data	Object	The object that of the data requested.	The object consists of the following fields: <ul style="list-style-type: none"> <li>co</li> <li>route</li> <li>orig_en</li> <li>orig_tc</li> <li>orig_sc</li> <li>dest_en</li> <li>dest_tc</li> <li>dest_sc</li> <li>data_timestamp</li> </ul>	"data": { "co": "CTB", "route": "1", "orig_en": "Felix Villas", "orig_tc": "摩星嶺", "orig_sc": "摩星岭", "dest_en": "Happy Valley (Upper)", "dest_tc": "跑馬地 (上)", "desc_sc": "跑马地 (上)", "data_timestamp": "2019-04-26T16:00:00+08:00" }

co	String	The company code of a bus company.	The valid company codes are: <ul style="list-style-type: none"> <li>CTB for Citybus Limited</li> <li>NWFB for New World First Bus Services Limited</li> </ul>	"co": "CTB" Note: Empty data object denotes data not found.
route	String	The bus route number of the requested bus company.		"route": "1",
orig_en	String	The origin of a bus route in English.		"orig_en": "Felix Villas"
orig_tc	String	The origin of a bus route in Traditional Chinese.		"orig_tc": "摩星嶺",
orig_sc	String	The origin of a bus route in Simplified Chinese.		"orig_sc": "摩星岭",
dest_en	String	The destination of a bus route in English.		"dest_en": "Happy Valley (Upper)"
dest_tc	String	The destination of a bus route in Traditional Chinese.		"dest_tc": "跑馬地 (上)"
dest_sc	String	The destination of a bus route in Simplified Chinese.		"dest_sc": "跑马地 (上)"
data_timestamp	String	The timestamp of the data when it was initially prepared from the origin server.	Date time with time zone in ISO 8601 format.	"data_timestamp": "2019-04-26T15:28:00+08:00"



### 2.3 Stop

Data Field	Data Type	Description	Definition (if applicable)	Example
type	String	The corresponding API that returns the data.	The value will always be “Stop”.	"type": "Stop"
version	String	The version number of the JSON returned.	The version number in major and minor versioning format.	"version": "1.0"
generated_timestamp	String	The timestamp of the initial generated time of the response before it is cached.	Date time with time zone in ISO 8601 format.	"generated_timestamp ": "2019-06-04T11:27:24+08:00"
data	Object	The object that of the data requested.	<p>The object consists of the following fields:</p> <ul style="list-style-type: none"> <li>stop</li> <li>name_en</li> <li>name_tc</li> <li>name_sc</li> <li>lat</li> <li>long</li> <li>data_timestamp</li> </ul>	<pre>"data": {   "stop": "002737",   "name_en": "Pottinger Street, Des Voeux Road Central",   "name_tc": "砵典乍街, 德輔道中",   "name_sc": "砵典乍街, 德輔道中",   "lat": 22.283948,   "long": 114.156309,   "data_timestamp": "2019-07-26T05:00:09+08:00" }</pre> <p>Note: Empty data object denotes data not found.</p>

stop	String	The ID of a bus stop.	The ID is a left zero padded 6-digit number	"stop": "002737"
name_en	String	The name of a bus stop, in English.		"name_en": "Pottinger Street, Des Voeux Road Central"
name_tc	String	The name of a bus stop, in Traditional Chinese		"name_tc": "砵典乍街, 德輔道中"
name_sc	String	The name of a bus stop, in Simplified Chinese		"name_sc": "砵典乍街, 德輔道中"
lat	Numeric	Latitude of a bus stop location.	Latitude in decimal degree in WGS84 standard.	"lat": 22.283948
long	Numeric	Longitude of a bus stop location.	Longitude in decimal degree in WGS84 standard.	"long": 114.156309
data_timestamp	String	The timestamp of the data when it was initially prepared from the origin server.	Date time with time zone in ISO 8601 format.	"data_timestamp": "2019-07-26T05:00:09+08:00"

## 2.4 Route-Stop

Data Field	Data Type	Description	Definition (if applicable)	Example
type	String	The corresponding API that returns the data.	The value will always be “RouteStop”.	"type": "RouteStop"
version	String	The version number of the JSON returned.	The version number in major and minor versioning format.	"version": "1.0"
generated_timestamp	String	The timestamp of the initial generated time of the response before it is cached.	Date time with time zone in ISO 8601 format.	"generated_timestamp ": "2019-06-04T11:27:24+08:00"
data	Object Array	An array of object of the data requested. Each object is data of a stop.	The object consists of the following fields: <ul style="list-style-type: none"> <li>co</li> <li>route</li> <li>dir</li> <li>seq</li> <li>stop</li> <li>data_timestamp</li> </ul>	"data": [ { "co": "CTB", "route": "1", "dir": "I", "seq": 1, "stop": "002403", "data_timestamp": "2019-04-11T15:00:00+08:00" }, ... ]

				Note: Empty data object array denotes data not found.
co	String	The company code of a bus company.	The valid company codes are: <ul style="list-style-type: none"> <li>CTB for Citybus Limited</li> <li>NWFB for New World First Bus Services Limited</li> </ul>	"co": "CTB"
route	String	The bus route number of the requested bus company.		"route": "1"
dir	String	The direction of a bus route.	The direction can be: <ul style="list-style-type: none"> <li>I – Inbound</li> <li>O - Outbound</li> </ul>	"dir": "I"
seq	Numeric	The stop sequence number of a bus route.		"seq": 1
stop	String	The ID of a bus stop.	The ID is a left zero padded 6-digit number	"stop": "000975"
data_timestamp	String	The timestamp of the data when it was initially prepared from the origin server.	Date time with time zone in ISO 8601 format.	"data_timestamp": "2019-04-26T15:28:00+08:00"

Remark:

Please note that there is no specific field to indicate a circular route. For circular routes, a particular stop in midway is defined as the turning

point. All stops before the turning point are part of the "outbound" direction, and all stops after are part of the "inbound" direction.

## 2.5 Estimated Time of Arrival (ETA)

Data Field	Data Type	Description	Definition (if applicable)	Example
type	String	The corresponding API that returns the data.	The value will always be “ETA”.	"type": "ETA"
version	String	The version number of the JSON returned.	The version number in major and minor versioning format.	"version": "1.0"
generated_timestamp	String	The timestamp of the initial generated time of the response before it is cached.	Date time with time zone in ISO 8601 format.	"generated_timestamp ": "2019-06-04T11:27:24+08:00"
data	Object Array	An array of object of the data requested. Each object represents an ETA.	The object consists of the following fields: <ul style="list-style-type: none"> <li>• Co</li> <li>• route</li> <li>• dir</li> <li>• seq</li> <li>• stop</li> <li>• dest_en</li> </ul>	"data":[ { "co":"NWFB", "route":"101", "dir":"O", "seq":12, "stop":"002737", "dest_en":"Kwun Tong (Yue Man Square)",

			<ul style="list-style-type: none"> <li>dest_tc</li> <li>dest_sc</li> <li>eta_seq</li> <li>eta</li> <li>rmk_en</li> <li>rmk_tc</li> <li>rmk_sc</li> <li>data_timestamp</li> </ul>	<pre>"dest_tc": "觀塘(裕民坊)", "dest_sc": "观塘(裕民坊)", "eta_seq": 1, "eta": "", "rmk_en": "KMB Cycle", "rmk_tc": "九巴時段", "rmk_sc": "九巴时段", "data_timestamp": "2019-07-26T11:22:01+08:00" }... ]</pre> <p>Note: Empty data object array denotes data not found.</p>
co	String	The company code of a bus company.	<p>The valid company codes are:</p> <ul style="list-style-type: none"> <li>CTB for Citybus Limited</li> <li>NWFB for New World First Bus Services Limited</li> </ul>	"co": "CTB"
route	String	The bus route number of the requested bus company.		"route": "1"

dir	String	The direction of a bus route.	The direction can be: <ul style="list-style-type: none"> <li>I – Inbound</li> <li>O - Outbound</li> </ul>	"dir": "I"
seq	Numeric	The stop sequence number of a bus route.		"seq": 1
stop	String	The ID of a bus stop.	The ID is a left zero padded 6-digit number	"stop": "000975"
dest_en	String	The destination of a bus route in English.		"dest_en": "Happy Valley (Upper)"
dest_tc	String	The destination of a bus route in Traditional Chinese.		"dest_tc": "跑馬地 (上)"
dest_sc	String	The destination of a bus route in Simplified Chinese.		"dest_sc": "跑马地 (上)"
eta_seq	Numeric	The sequence number of ETA		"eta_seq": 1
eta	String	The timestamp of the next ETA.	Date time with time zone in ISO 8601 format.	"eta": "2019-05-20T15:48:00+08:00"
rmk_en	String	Remark of an ETA in English.		"rmk_en": " KMB Cycle "
rmk_tc	String	Remark of an ETA in		"rmk_tc": "九巴時段"

		Traditional Chinese.		
rmk_sc	String	Remark of an ETA in Simplified Chinese.		"rmk_sc": "九巴时段"