



# API USER JOURNEY- TRAVEL SOFTWARE SERVICES

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Version 3.0

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## REVISION HISTORY

Version	Date	Summary
1.0	08/10/2018	Base Version <ul style="list-style-type: none"> <li>- Map API and 3<sup>rd</sup> Party API published as part of Consumer API User Journey technical documentation.</li> </ul>
2.0	12/11/2018	Revision – TIH2.0 <ul style="list-style-type: none"> <li>- Map API to support query across multiple content category datasets</li> </ul>
3.0	12/04/2019	Revision <ul style="list-style-type: none"> <li>- Technical Documentation created with regrouping of APIs, with this document specifically created for group of APIs under Travel Software Services, which contains:               <ul style="list-style-type: none"> <li>○ Enhanced Navigation Service API (renamed from Map API)</li> <li>○ Recommendation Engine API (NEW)</li> <li>○ 3<sup>rd</sup> Party Information Sources API</li> </ul> </li> <li>- Removed deprecating APIs (from Map API):               <ul style="list-style-type: none"> <li>○ searchByDatasetAndType</li> <li>○ searchByDataset</li> </ul> </li> </ul>

## 1. TRAVEL SOFTWARE SERVICES API

TIH provides a set of plug-and-play travel software services for tourism businesses to use in their digital channels. This includes enhanced navigation service, recommendation engine, and other 3<sup>rd</sup> party services.

### 1.1. Attribute Index

When an API is invoked, a JSON-formatted response is returned to the user. The table below provides a brief overview on all the attributes commonly found in the response.

Main Attribute	Sub-Attribute	Description	Example
address	block	Address where the record is located in Singapore	1
	streetName		Chinese Garden Rd
	floorNumber		
	unitNumber		
	buildingName		
	postalCode		619795
name		Name of the record	Chinese Garden
location	latitude	Latitude and longitude values provided by user, based on this we search on specific place or nearby	1.3130097
	longitude		103.7892928
type		Type in which the record belongs to	RECREATION_LEISURE
tags		Tags pertaining to the record	Jurong
description		Text description of the record	Chinese Garden is a park in Jurong East, Singapore. Built in 1975 by the JTC Corporation and designed by Prof. Yuen-chen Yu, an architect from Taiwan, the Chinese Garden's concept is based on Chinese gardening art.
typeDescription		type description of the record	Leisure & Recreation

source		Name of organization that posted the record	STB
metadata	createdDate	Date in which the record was created in the server	2017-10-30T20:20:00Z
	updatedDate	Date in which the record was last updated in the server	2017-08-11T15:21:00Z
singaporeTourismAwards		Field to indicate the awarded Singapore Tourism Award	2016 - BEST ATTRACTION EXPERIENCE
rating		Google rating of that particular record, out of 5 stars	5

thumbnails	url	When uploading thumbnails to TIH Repository using media image api, it will return image url & unique identifier details in response	<a href="https://tih-api.stb.gov.sg/media/v1/download/uuid/101fd529ef999964f66bf9283a06b266a26/thumbnails.jpg">https://tih-api.stb.gov.sg/media/v1/download/uuid/101fd529ef999964f66bf9283a06b266a26/thumbnails.jpg</a>
	uuid		101b9697999b61344e8833776a98d886761
images	url	When uploading images to TIH Repository using media image api, it will return image url & unique identifier details in response	<a href="https://tih-api.stb.gov.sg/media/v1/download/uuid/101fd529ef999964f66bf9283a06b266a26/thumbnails.jpg">https://tih-api.stb.gov.sg/media/v1/download/uuid/101fd529ef999964f66bf9283a06b266a26/thumbnails.jpg</a>
	uuid		101b9697999b61344e8833776a98d886761
videos	url	When uploading images to TIH Repository using media video api, it will return video url & unique identifier details in response	<a href="https://tih-api.stb.gov.sg/media/v1/download/uuid/101fd529ef999964f66bf9283a06b266a26/thumbnails.jpg">https://tih-api.stb.gov.sg/media/v1/download/uuid/101fd529ef999964f66bf9283a06b266a26/thumbnails.jpg</a>
	uuid		101b9697999b61344e8833776a98d886761

body			Chinese Garden is a park in Jurong East, Singapore. Built in 1975 by the JTC Corporation and designed by Prof. Yuen-chen Yu, an architect from Taiwan, the Chinese Garden's concept is based on Chinese gardening art.
uuid		Unique ID attribute used to uniquely identify a record	00290ed83551389471abe25eecf4ddb9563
contact	primaryContactNo	Contact details pertaining to the record	+65 6466 4911
	secondaryContactNo		+65 6466 4911
	otherContactNo		+65 6466 4911
officialEmail		The official email of the record	stb@gmail.com
ticketed			No
amenities		Available facilities of the record	Swimming Pool
nearestMrtStation		The nearest MRT Station to the record	Chinese Garden MRT Station
officialWebsite		The official website of the record	<a href="http://www.visitsingapore.com/content/traveller/en/browse/seeand-do/nature-andwildlife/parks-andgardens/chinesegarden/">http://www.visitsingapore.com/content/traveller/en/browse/seeand-do/nature-andwildlife/parks-andgardens/chinesegarden/</a>
shortDescription		A short description to provide a summary of the record	Chinese Garden is a park in Jurong East, Singapore.
pricing		Pricing information of the record	child \$12, others \$20, seniorCitizen \$12, adult \$18
admissionInfo		Any information related to the admission to the record	Open on all days

<p>openingHours</p>	<p>Opening and closing hours of the record</p> <p><u>Format:</u>          Opening and Closing hours of the record.          Open 24 Hours          Open DDD-DDD          HH:MMa - HH:MMa          DDD-DDD HH:MMa - HH:MMa          Open Public Holiday          HH:MMa - HH:MMa          Open DDD-DDD          HH:MMa</p>	<p>Mon-Sun:24hours           Mon-Wed 12:00am-4:00pm          Fri-Sun 12:00am-4:00pm           Public Holiday 12:00am-4:00pm           Mon-Sun 12:00am-4:00pm</p>
<p>nextToken</p>	<p>Parameter which can be used to obtain the subsequent set of <b>N</b> records</p>	<p>Next Token which will be used to retrieve the next set of records. E.g.          MNXW2LTTORRC45DJNAX          GG33SMUXG233EMVWC4          QLUORZGCY3UNFXW4UTF          MZJWKYLSMNUFEZLTOVW          HIJXIMSTOQZRG13SKN2DE          U3UGMRQEU3UGJXIMZD          AJXIMSTOQ3UPFYGKJTIQ          STOQZFG5BWWZLZO5XXEZ          BFGNCGCJXIMSTOQ3EMF          2GC43POVZGGZJFGNCKN          2DEU3UG</p>



## 2. Enhanced Navigation Services API

### 2.1. General

The APIs within this section provide generic Map or location-based services for developers. For example, searchByMultiDataset API to search across one or more datasets within an area.

GET <b>searchByMultiDataset</b> <a href="https://tih-api.stb.gov.sg/map/v1/search/multidataset">https://tih-api.stb.gov.sg/map/v1/search/multidataset</a>			
Provide users the ability to search for a dataset, such as Attractions or Accommodation, within an area (identified by location and radius). A list of that dataset, along with the details, are then provided as a response to users. The query parameters include: location, radius, dataset, keyword, sort by (rating, last updated, distance away), and next token.			
REQUEST			
Parameters	Description	Mandatory	Example
location	Location [latitude,longitude]	Yes	1.2835627,103.85849 85
radius	Radius to search for, default 1000 m	No	1000 m
dataset	General search term Note: Use General Dataset API to get all the Dataset values [accommodation; attractions; bars_clubs; event; food_beverages; shops; tour; venue; walking_trail; precincts]	No	accommodation
keyword	Keyword to look for when performing the search function	No	Bayfront
sort	Sort [ default   rating   lastupdated   distance_rating] (empty or default will sort by distance)	No	Default
nextToken	Next Token which will be used to retrieve the next set of records	No	
language	Language type [en   zh-cn   zh-tw   ja   ko] If no language is supplied, en will be the default language applied.	No	en

GET <b>placeDetail</b> <a href="https://tih-api.stb.gov.sg/map/v1/place/{uuid}">https://tih-api.stb.gov.sg/map/v1/place/{uuid}</a>			
<p>Retrieve place details, powered by Google Place Details API, which contains information such as user ratings and reviews. Given the TIH product/experience having the unique identifier (uuid) provided and its location (latitude and longitude), corresponding place details are returned. TIH portal generated the uuid when content is created. You can retrieve existing uuid from our Content API (e.g. Attraction API, Accommodation API, etc).</p>			
REQUEST			
Parameters	Description	Mandatory	Example
uuid	Attribute used to uniquely identify a product/experience listed in TIH. Using the latitude and longitude of the place, Google Map place details will be returned.	Yes	ZxUjjJ1t2t3R9D937iLU6akGZ3iLzcZn

GET <b>autoCompleteByType</b> <a href="https://tih-api.stb.gov.sg/map/v1/autocomplete/type/{type}">https://tih-api.stb.gov.sg/map/v1/autocomplete/type/{type}</a>			
<p>Retrieves a list of place predictions, powered by Google Place Autocomplete API. The query parameter is input. The type consists of geocode, address, establishment, etc.</p>			
REQUEST			
Parameters	Description	Mandatory	Example
type	geocode   address   establishment	Yes	geocode
input	Input to do an auto complete search on	Yes	Bay

## 2.2. Experiential Route

In addition to providing directions, the Experiential Route shows various points of interests along that route.

<b>GET</b> <b>experientialRouteByMode</b> <a href="https://tih-api.stb.gov.sg/map/v1/experiential_route/{mode}">https://tih-api.stb.gov.sg/map/v1/experiential_route/{mode}</a>			
Retrieves list of Experiential Route result. The query parameters include: origin, destination and waypoint. The format for mode consist of bicycling, transit and walk.			
REQUEST			
Parameters	Description	Mandatory	Example
mode	Mode of transport which will be used. [default   bicycling   walking]	Yes	Walking
origin	Location of starting point	Yes	1.28784,103.851418
destination	Location of ending point	Yes	1.296659,103.848686
dataset	General search term Note: Use General Dataset API to get all the Dataset values [accommodation; attractions; bars_clubs; event; food_beverages; shops; tour; venue; walking_trail]	No	accommodation
maxpoi	Maximum number of POI to be returned. Range between 1 - 8	No	5
waypoint	Waypoints which user will divert to between their journey	No	1.283551,103.844309

### 3. Recommendation Engine API

This section provides APIs for developers to retrieve a list of recommended Points of Interest (POIs) based on search filters, such as visitor's nationality, interests, locations, and other filters.

<div style="display: flex; align-items: center;"> <div style="background-color: #0056b3; color: white; padding: 5px 10px; font-weight: bold; margin-right: 10px;">GET</div> <div> <h2 style="margin: 0;">getRecommendations</h2> <p style="margin: 0;"><a href="https://tih-api.stb.gov.sg/service/v1/content/recommendations">https://tih-api.stb.gov.sg/service/v1/content/recommendations</a></p> </div> </div>			
<p>Provides the ability to search through multiple datasets for POIs to be recommended for a particular segment of visitor, identified for example by their nationality, interests, location and other filters.</p>			
REQUEST			
Parameters	Description	Mandatory	Example
nationality	To return recommended contents for specific nationality. Possible values: AU   CN   DE   GB   HK   ID   IN   JP   KR   MY   PH   TH   TW   US   VN   Others Default value: Others	No	TH
dataset	Filter the search results based on the content categories/datasets [accommodation, attractions,bars_clubs, event,food_beverages,shops,tour,venue, walking_trail]. Default: when not specified, the recommended POIs can be from any datasets.	No	accommodation,attractions
interest	Filter the search results based on interests. [arts_culture,entertainment_nightlife,food,history_heritage,shopping,sport_outdoors] Default: when not specified, the	No	arts_culture,food,nightlife

	recommended POIs are not limited to certain interests.		
rating	Minimum Google rating for the content to be recommended. Minimum value: 0 Maximum value: 5 Default value: 0, returning all content, regardless of the Google rating, even if the content does not have corresponding Google rating.	No	3
location	Location in the following format: [latitude,longitude]  This works with 'radius' parameter to recommend content within the specified radius from the location.	No	1.2835627,103.8584985
radius	Radius in meters, default value when not specified is 5000 metres. This parameter is considered only when 'location' is specified.	No	5000
openNow	Filter to show only Product/Experience that opens right now [true   false] Default value: false	No	true

## 4. 3<sup>rd</sup> Party Information Sources API

### 4.1. Weather

The Weather API allows users to retrieve weather forecasts of various areas in Singapore.

<b>GET</b> <b>weatherBy2hr</b> <a href="https://tih-api.stb.gov.sg/weather/v1/2hr-forecast">https://tih-api.stb.gov.sg/weather/v1/2hr-forecast</a>			
Returns list of forecast by areas.			
REQUEST			
Parameters	Description	Mandatory	Example
Nil			

<b>GET</b> <b>weatherBy24hr</b> <a href="https://tih-api.stb.gov.sg/weather/v1/24hr-forecast">https://tih-api.stb.gov.sg/weather/v1/24hr-forecast</a>			
Returns list of forecast by regions.			
REQUEST			
Parameters	Description	Mandatory	Example
Nil			

<b>GET</b> <b>weatherBy4day</b> <a href="https://tih-api.stb.gov.sg/weather/v1/4day-forecast">https://tih-api.stb.gov.sg/weather/v1/4day-forecast</a>			
Returns list of forecast.			
REQUEST			
Parameters	Description	Mandatory	Example
Nil			

## 4.2. Public Transport - Bus

This section provides users with the ability to retrieve data pertaining to buses in Singapore. Bus arrivals, bus stop details and bus services are some of the data that can be retrieved through these API utilizations.

<b>GET busArrivalByBusStopAndBusService</b>			
https://tihapi.stb.gov.sg/transport/v1/bus_arrival/bus_stop/{bus_stop}/bus_service/{bus_service}			
Returns list of Bus Arrivals by Bus Stop and Bus Service.			
REQUEST			
Parameters	Description	Mandatory	Example
bus_stop	Bus Stop Code	Yes	55039
bus_service	Bus service	Yes	163

<b>GET busArrivalByBusStop</b>			
https://tih-api.stb.gov.sg/transport/v1/bus_arrival/bus_stop/{bus_stop}			
Returns list of Bus Arrivals by Bus Stop.			
REQUEST			
Parameters	Description	Mandatory	Example
bus_stop	Bus Stop Code	Yes	55039

<b>GET busRouteByBusService</b>			
https://tih-api.stb.gov.sg/transport/v1/bus_route/service/{bus_service}			
Returns list of Bus Routes by Bus Service.			
REQUEST			
Parameters	Description	Mandatory	Example
bus_service	Bus service	Yes	163

<b>GET busServiceByBusStopCode</b> https://tih-api.stb.gov.sg/transport/v1/bus_service/bus_stop/{stopcode}			
Returns list of Bus Services by Bus Stop Code.			
REQUEST			
Parameters	Description	Mandatory	Example
stopcode	Bus Stop Code	Yes	55039

<b>GET busServiceByOperator</b> https://tih-api.stb.gov.sg/transport/v1/bus_service/operator/{operator}			
Returns list of Bus Services by Operator.			
REQUEST			
Parameters	Description	Mandatory	Example
operator	Operator Details [SBST   SMRT   GAS   TTS]	Yes	SMRT

<b>GET busStopByBusStopCode</b> https://tih-api.stb.gov.sg/transport/v1/bus_stop/bus_stop/{stopcode}			
Returns Bus Stop details by Bus Stop Code.			
REQUEST			
Parameters	Description	Mandatory	Example
stopcode	Bus Stop Code	Yes	55039

<b>GET busStopByLocation</b> https://tih-api.stb.gov.sg/transport/v1/bus_stop			
Returns list of Bus Stops by Location.			
REQUEST			
Parameters	Description	Mandatory	Example
location	Location to conduct the search on	Yes	1.3891489,103.84164 27
radius	Radius to restrict the search on	No	1000



### 4.3. Finance

This section provides users with the ability to retrieve data pertaining to finances in Singapore. Location and name of money changer are some of the data that can be retrieved through these API utilizations.

<b>GET</b> <b>getMoneyChangerByLocation</b> <a href="https://tih-api.stb.gov.sg/money-changer/v1">https://tih-api.stb.gov.sg/money-changer/v1</a>			
Returns list of Money Changer.			
REQUEST			
Parameters	Description	Mandatory	Example
location	Location to conduct the search on	Yes	1.3651404803,103.86541590
radius	Radius to restrict the search on	No	1000

<b>GET</b> <b>getMoneyChangerByName</b> <a href="https://tih-api.stb.gov.sg/money-changer/v1/name/{name}">https://tih-api.stb.gov.sg/money-changer/v1/name/{name}</a>			
Returns list of Money Changer.			
REQUEST			
Parameters	Description	Mandatory	Example
name	Name of money changer	Yes	Cash Changer

#### 4.4. Public Transport - fare

This section provides users with the ability to retrieve data pertaining to fares in Singapore. Fares details of MRT and LRT can be retrieved through these API utilizations.

<b>GET</b> <b>getMrtLrtFare</b> <a href="https://tih-api.stb.gov.sg/transport/v1/fare/mrt-lrt/type/{type}">https://tih-api.stb.gov.sg/transport/v1/fare/mrt-lrt/type/{type}</a>			
Returns fare detail for MRT & LRT.			
REQUEST			
Parameters	Description	Mandatory	Example
type	The specific Type within Mrt & Lrt to look for	Yes	Student card fare

<b>GET</b> <b>getMrtLrtFareTypes</b> <a href="https://tih-api.stb.gov.sg/transport/v1/fare/mrt-lrt/types">https://tih-api.stb.gov.sg/transport/v1/fare/mrt-lrt/types</a>			
Returns list of fare type.			
REQUEST			
Parameters	Description	Mandatory	Example
Nil			
RESPONSE			
Senior citizen card fare; Student card fare; Workfare transport concession card fare; Single trip; Adult card fare; Persons with disabilities card fare			

## 4.5. Parks

This section provides users with the ability to retrieve data pertaining to parks in Singapore. National Park and National Park Connector are some of the data that can be retrieved through these API utilizations.

<b>GET</b> <b>getNationalParkByLocation</b> <a href="https://tih-api.stb.gov.sg/national-park/v1">https://tih-api.stb.gov.sg/national-park/v1</a>			
Returns list of National Park .			
REQUEST			
Parameters	Description	Mandatory	Example
location	Location to conduct the search on	Yes	1.3651404803,103.86541590
radius	Radius to restrict the search on	No	1000

<b>GET</b> <b>getNationalParkByName</b> <a href="https://tih-api.stb.gov.sg/national-park/v1/name/{name}">https://tih-api.stb.gov.sg/national-park/v1/name/{name}</a>			
Returns the latitude/longitudes of National Park .			
REQUEST			
Parameters	Description	Mandatory	Example
name	Name of national park	Yes	Upper Seletar Reservoir

<b>GET</b> <b>getNationalParkConnectorByLocation</b> <a href="https://tih-api.stb.gov.sg/national-park/v1/connector">https://tih-api.stb.gov.sg/national-park/v1/connector</a>			
Returns list of National Park Connector.			
REQUEST			
Parameters	Description	Mandatory	Example
location	Location to conduct the search on	Yes	1.3651404803,103.86541590
radius	Radius to restrict the search on	No	1000