



# BMTC Data & API for Urban Hack 2015

BMTC data can be accessed via two means (1) as API's and (2) as a GTFS feed. Details to access both of them are listed below.

## 1. BMTC API

The Following list of API's would be available to the participants during the duration of the hackathon.

API	Input / Output*
GetAllRoutes	( INPUT – NA; Output – List all the available routes in BMTC)
GetAllStopsForRoute	( INPUT – Route; Output – List all stop names, route order(upward / downward) and direction for the particular Route in the request)
GetDepartureTimeForRoute	( INPUT – StopName, Stop Direction, Route; Ouput – List the Departure times from particular stop of the route)
GetDistanceFromOriginRoute	( INPUT – StopName, Stop Direction, Route; Output – Distance and time of the stop from the origin of the route)
GetAllStops	(Input - NA; Output- List all stop names, latitude, longitude and area name of the stop available in BMTC routes.)
GetAllStops	(Input: Area name; Output- List all stop names, latitude, longitude and area name of the stop available in BMTC routes.)
GetRouteThroughStop	(Input : Stop name; Output - Route, Origin stop name, Destination stop name.)



\*Request parameters should be in the form of query string and response for each of the request will be in json format. Details on how to use the api's will be available in the Xerox API explorer.

### Xerox API Explorer

The Xerox API explorer is a web interface that provides documentation for API access and usage

URL : <https://166.78.185.237:9990/surxplore/>

For using the API explorer –, you need to use the following credentials:

Username : [urbanhack2015@gmail.com](mailto:urbanhack2015@gmail.com)

Password: xrciNbmtc112

***Only Google Chrome & Firefox browsers are supported in this event to access the API Explorer, use the API Explorer as an API documentation and usage source only.***

**On accessing the API explorer, please do the following :**

1. Open the link <https://166.78.185.237:8443> and accept security exception for self-signed certificate.
2. Open the link <https://166.78.185.237:9990/surxplore> and accept security exception for self-signed certificate.

**For Code generation through API Explorer:**

- Use without warranty and is supported with only programming languages listed there. You are free to code in whichever language you are comfortable using the appropriate urls and parameters to invoke the API of interest.
- While generating code, allow popups in the browser.
- Put url '<https://166.78.185.237:8443/>' in new tab in same instance of API Explorer browser and accept the conditions. You must see Jetty homepage and then the code generation download will work!



### Request URLs:

For the actual request urls to be used in your use-case solutions:

- Use only the HTTP GET request with header **“Authorization: Basic dXJiYW5oYWNRMjAxNUBnbWFpbC5jb206eHJjaU5ibXRjMTEy”**
- Sample Request urls are as shown in the examples below with the appropriate parameters for your use cases:

Eg: <https://166.78.185.237:9990/urbanhack/0.1/routes>

[https://166.78.185.237:9990/urbanhack/0.1/routes/by\\_stop?stop\\_name=Hebbal](https://166.78.185.237:9990/urbanhack/0.1/routes/by_stop?stop_name=Hebbal)

[https://166.78.185.237:9990/urbanhack/0.1/routes/by\\_num?route=284](https://166.78.185.237:9990/urbanhack/0.1/routes/by_num?route=284)

[https://166.78.185.237:9990/urbanhack/0.1/routes/departure\\_time?route=284&route\\_direction=U&stop\\_name=Hebbal](https://166.78.185.237:9990/urbanhack/0.1/routes/departure_time?route=284&route_direction=U&stop_name=Hebbal)

[https://166.78.185.237:9990/urbanhack/0.1/routes/distance\\_time?route=284&route\\_direction=U&stop\\_name=Palace%20Ground](https://166.78.185.237:9990/urbanhack/0.1/routes/distance_time?route=284&route_direction=U&stop_name=Palace%20Ground)

<https://166.78.185.237:9990/urbanhack/0.1/stops>

[https://166.78.185.237:9990/urbanhack/0.1/stops/by\\_locality?area\\_name=RT%20Nagara](https://166.78.185.237:9990/urbanhack/0.1/stops/by_locality?area_name=RT%20Nagara)

## 2. BMTC GTFS feed data:

Download from the following github repository : <https://github.com/xerox-urbanhack/gtfs-data>