



Information & Information Technology

Open API Data Catalogue

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1 Introduction

1.1 Open API Data Catalogue Overview

This document provides a central descriptions of business data such as a standards definition of data elements, their meanings and allowable values for the Open API attributes. The contents are divided into the following topics, and access key will be required and this will determine which topic is accessible.

- Stop Service
- ServiceataGlance
- ServiceUpdate
- Schedule
- Fares Service
- GTFS Feeds (VehiclePosition, TripUpdate and Service Alerts)

1.2 The Key Elements

This document provides information about each attribute, which can also referred to as fields. An attribute is a place in the database that holds information.

Below are the most common elements included in this document:

#	Element Name	Description
1	Attribute Name	This indicate a unique identifier of an attribute
2	Description	This gives a short description of an attribute
3	Data Type	This defines what type of data is allowed or the storage format that can contain a specific type or range of values for an attribute
4	Required Field?	This indicates whether information is mandatory in an attribute, or is optional

5	Maximum Length	This specifies the maximum length (in character) of a text area for an attribute
6	Notes	Additional information about an attribute

2 Data Catalogue

2.1 Common Data Elements

Description

This section identify and define a set of common data elements that are generalizable across the Open API service calls.. This is a standard information that is returned by each service call, and its necessary to ensure that data are defined in the same way, use the same standards, and use the same terminology. Each service call returns a set of common data elements in the Metadata structure illustrated below.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
TimeStamp	This indicate the date and time the information was returned.	datetime		Mandatory	For example: YYYY-MM-DD hh:mm:ss
ErrorCode	This is an identifier for the error message.	varchar	10	Mandatory	The error codes are described in the table below.
Error Message	This indicate the text of the error message.	varchar	50	Mandatory	The error messages are described in the table below

The table below gives information about error codes and error messages.

Code	Message	Description
200	OK	No error
204	No Content	No data was found.
400	Bad request	The server cannot process the request due to a malformed client request.
401	Unauthorized	Key was missing or incorrect.
403	Forbidden	Key does not have access to the topic.
404	Not found	The URI is invalid or the resource does not exist.
410	Gone	The API version no longer exists. Use the current version.
429	Too Many Requests	The request cannot be served because key's use limit has been reached
500	Internal Server Error	There is an issue. Please post on the developers forums so the issue can be resolved.
503	Service Unavailable	Open data servers are down or overloaded with requests. Try again later.
504	Gateway timeout	A server did not respond. Try again later.

2.2 Stop Service

Description

Stops are locations where we have scheduled service and this return predictions for all lines for a set stop. This contains the following functions:

- StopNextService
- StopDetails
- StopDestination
- StopAll

2.2.1 StopNextService

Description

Next Service is the lines (**rail lines and bus routes**) that feed the stop. This service give predictions for all lines that feed a certain bus or train stop

Parameter List: StopCode – the stop for which the line predictions are required

Returns Value: Bus or train lines / routes that feed the given stop

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
StopCode	Assigned unique code identifying the station	varchar	10	Mandatory	For example: 00129
LineCode	A two character corridor code (rail) or two digit route number (bus) for the line	varchar	10	Mandatory	For example: 21
LineName	The name of the line for the rail corridor or bus route.	varchar	100	Optional	Example: "Milton Train-Bus Service"

ServiceType	A code indicating if it is a train or bus	char	1	Mandatory	Possible value: T = train B = bus
DirectionCode	The line code for the train line or bus route.	varchar	10	Mandatory	When it is a bus route variance it is the Line Code appended with a letter; e.g. 21N
DirectionName	The Direction code and the final destination station.	varchar	100	Optional	Example: 21N – Milton GO
TripOrder	The sequential order of the Trip.	int		Optional	Example: 1
TripNumber	Unique alpha-numeric trip code which links trip to a schedule	Varchar	50	Mandatory	Example: 21253
UpdateTime	The last modification to the date and timestamp for a trip.	datetime		Optional	Example: YYYY-MM-DD ddThh:mm:ss. nnn 2018-06-28 10:06:36
Status	A code to describe the delay status of	varchar	10	Optional	S – Stopped M – Moving

	the Trip:				
Latitude	The vehicle's current latitude coordinate; with the Longitude, this gives the vehicle's location	numeric		Optional	For example: 43.5692670
Longitude	The vehicle's current longitude coordinate; with the Latitude, this gives the vehicle's location	numeric		Optional	For example: -79.6688830
Scheduled Departure Time	Recorded scheduled date and time of departure.	datetime		Optional	Display format: YYYY-MM-DDThh:mm:ss; Example: 2018-04-02T13:11:00)
ComputedDeparture Time	The last computed departure date and time considering any delays.	datetime		Optional	Display format: YYYY-MM-DDThh:mm:ss; Example: 2018-03-02T13:11:00)
DepartureStatus	A code to describe the delay status of the stop's departure	char	1	Optional	Possible Values and meanings: E – Estimated

	time:				C – Cancelled A – Actual
ScheduledPlatform	The scheduled platform for a train.	varchar	5	Optional	For Union Station it is a platform, vs. a track for Line stations.
ActualPlatform	The actual platform for a train.	varchar	5	Optional	It is only populated when the ArrivalStatus, or DepartureStatus, indicates that it is actual (A).

2.2.2 StopDetails

Description

The stop details service displays information regarding location details, its facilities and parking lots for a given stop code.

Parameter List: StopCode – the stop requiring the details of a location

Returns Value: The location, its facilities and parking lots for a given stop code.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
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ZoneCode	The fare zone for the location/station	varchar	50	Optional	Example: fare zone for Meadowvale GO station is: 22
StreetNumber	Street number of the station	varchar	10	Optional	Example: 6845
Intersection	Main intersection address close to the station	varchar	255	Optional	Example: Millcreek Drive and Aquitaine Avenue
City	City the station is located	varchar	50	Optional	Example: Mississauga
StreetName	Name of the street the station is located	varchar	255	Optional	Example: Millcreek Drive
Code	A unique code identifying the Station	varchar	10	Optional	Example: 00129
StopName	The name of the station	varchar	255	Optional	Example: Meadowval GO
StopNameFr	French translation of the name of the station	varchar	255	Optional	
IsBus	This to indicate if it is a bus station (true) or not (false)	bit		Mandatory	Example: true for bus station
IsTrain	This to indicate if it is a train station (true) or not (false)	bit		Mandatory	Example: true for train station
Longitude	This indicate the facility correspond to the geographic coordinate longitude and in conjunction with the latitude	varchar	50	Optional	Example: -79.754517

	which represent the location of the facility				
Latitude	This indicate the facility correspond to the geographic coordinate latitude and in conjunction with the longitude which represent the location of the facility	varchar	50	Optional	Example: 43.597499
DrivingDirections	This is a description of the driving directions to the location	varchar	255	Optional	
Driving DirectionsFr	This gives the French translation of the driving directions to the location	varchar	255	Optional	
BoardingInfo	This is a description of the boarding information at the location	nvarchar	255	Optional	
BoardingInfoFr	French translation of the description of the boarding information at the location	nvarchar	255	Optional	
TicketSales	A description of ticket sales at the location	varchar	255	Optional	
TicketSalesFr	French translation of the ticket sales at the	nvarchar	255	Optional	

	location.				
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2.2.2.1 StopDetails – Facility

Description

This is a collection of facilities associated with the location

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Code	This is a code that describe a type of facility available at a location.	varchar	10	Mandatory	Facility codes and meanings: 1. ABM – Automatic bank teller machine 2. BR - Bicycle rack 3. DCA – Debit cards accepted 4. EV – Elevators 5. NEWS – Newspaper box 6. PP – Pay phones 7. PW – Public washroom 8. SB – Station building 9. TAXI – Taxi stand 10. TVM – Ticket vending machine 11. RK – Refreshment kiosk 12. WR – Waiting room 13. WAT –

					Wheelchair accessible train service
Description	This gives the description of the facility as identified by its code	varchar	50	Optional	Example: Code - DCA Description: Debit cards accepted
DescriptionFr	French translation of the facility as identified by the code.	nvarchar	50	Optional	

2.2.2.2 StopDetails – Parking

Description

This is the parking lot at a location

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Name	This is the name of the parking lot associated with the station	varchar	1024	Optional	
NameFr	French translation of the name of the parking lot associated with the station	Nvarchar	1024	Optional	
ParkSpots	This give the number (#) of parking spots in the parking lots	int		Optional	
Type	This is gives a description of the	varchar	100	Optional	The description of the parking lot

	parking lot.				<p>can either be one of the following or both:</p> <ul style="list-style-type: none"> • Regular • Structure
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2.2.2.3 StopDetails – Place

Description

This is a geographical area that include additional stops for the location

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Code	This is a unique alphanumeric code identifying the place	varchar	50	Mandatory	For example: medvis
Name	This is the name of the place	varchar	255	Optional	The name of the place will be based on GTFS values. For example: Meadowvale GO
Longitude	This indicate the place correspond to the geographic coordinate longitude and in conjunction with the latitude which represent the location of the place	decimal		Optional	Example: -79.7628632
Latitude	This indicate the place correspond to the geographic coordinate latitude and in conjunction with the longitude	decimal		Optional	Example: -43.6869087

	which represent the location of the place				
Radius	This Specifies a radius in meters that when combined with a centerpoint defines the area of the search (coverage information is provided)	Int		Optional	The minimum value is 0, the default value and maximum are not limited.

2.2.2.4 StopDetails – Stop

Description

This is the additional stops that are part of the place

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Code	This is a unique alphanumeric code identifying the station	varchar	50	Mandatory	For example: ME
Name	This is the name of the station	varchar	255	Optional	Example: Meadowvale GO

2.2.3 StopDestinations

Description

This gives information of all destinations from the origin stop at a specified time to the final destination stop.

Parameter List: StopCode - the stop requiring the details of a location

- FromTime - time of the day (e.g 0800 means 8.00 am)
- ToTime – time of the day (e.g 1300 means 1 :00 pm)

Returns Value: Returns information for the requested stop destinations.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory/Optional)	Notes
Code	A unique code identifying the Station	varchar	50	Optional	For example: 00129
Name	This is a name of the station	varchar	255	Optional	Meadowvale GO

2.2.3.1 StopDestinations – Line

Description

This provide information about the line and the final destination of the trip

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory/Optional)	Notes
Code	Assigned unique line code for rail or two digits bus route number for the line	varchar	10	Mandatory	For example:21
Display	This is the line or route number and final destination name	varchar	500	Optional	
Direction	This indicates direction of travel for the trip	char	1	Mandatory	For example : E
DestinationStop	This is the name of the final destination.	varchar	255	Optional	For example: USBT

2.2.4 StopAll

Description

Stop All allows user to retrieve information regarding stop locations and the description of these stops.

Parameter List: N/A

Returns Value: Station codes, associated names and stops types. **It excludes** the following:

- **BW:** Bus Way Point.
- **GR:** Bus Garage.
- **WP:** Way Point (Evaluation point in between stops to determine schedule performance).
- **YD:** Train Yard

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory/Optional)	Notes
Location Code	Code used to identify a station	varchar	50	Mandatory	For example: 00001
LocationName	Station name	varchar	255	Mandatory	For example: Newmarket GO Bus Terminal
LocationType	Description of the Stop Type	varchar	255	Mandatory	Possible values: BS: Bus Stop BT: Bus Terminal CL: Carpool Lot GT: GO Terminal PK: Park & Ride PR: GO Park & Ride ST: Train Station TA: Ticket Agency TB: Train & Bus Station TS: Ticket Agency & Stop TT: Ticket Agency & Terminal Only the descriptive name of the Stop Type will be returned and not the internal code.
PublicStopID	6 digits unique identification	varchar	50	Mandatory for Bus	Every GO bus stop has a unique

	number used to identify GO bus stop. This is also to help set bus stop departure time.				number identification. This gives the ability to specify the bus stop number in order to get next bus arrival time for the requested bus stop. Rail stations are excluded.
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2.3 Service Update

Description

Service Update returns all messages for the specified message class by data. This includes the following functions:

- ServiceAlertAll
- InformationAlertAll
- MarketingAlertAll
- UnionDeparturesAll
- ServiceGuarantee
- ExceptionTrain
- ExceptionBus
- ExceptionAll

Service Alerts, Information Alert and Marketing Alert these are sourced from Customer Communication Management System (**CCMS**) for the web channel and returns the same data structure for the Message Class and this only describe once.

2.3.1 ServiceAlertAll

Description

ServiceAlertAll displays service alert by date.

Parameter List: N/A

Returns Value: A collection of current Service Alert Messages from the branch and their associated entities where the Message.messageClass = "SRVALERT"

Attribute Name	Description	Data Type	Maximun Length	Required Field? (Mandatory / Optional)	Notes
Code	This is a unique alphanumeric string identifier for a message	varchar	50	Mandatory	For example: M0000163040
Category	This indicate the service category associated with the message	varchar	100	Optional	For example: Service Disruption
SubCategory	This indicates the subcategory of the service category associated with the message	varchar	100	Optional	For example: Train Service Suspension
ParentCode	This is a code related to any pervious message – if any	varchar	50	Optional	
Status	This indicates the status of the message	varchar	10	Optional	Possibel values: INIT – Initial CORR – Corrected FINAL – Final UPD - Updated
PostedDateTime	This indicates the date and time when the message was initially posted	varchar	50	Optional	Display format: yyyy-mm-ddThh:mm:ss.nnn example: 2018-06-02 09:03:45

SubjectEnglish	This is English subject text display	varchar	255	Optional	For example: Georgetown Farmers Market
SubjectFrench	This is French subject text display	varchar	255	Optional	For example: Marché des agriculteurs de Georgetown
BodyEnglish	This is English body text display	varchar	MAX	Optional	For example: Effective every Saturday from June 2nd to October 13th, 2018: The annual Georgetown Farmers Market will operate from 8:00 a.m. to 12:30 p.m.
BodyFrench	This is French body text display	varchar	MAX	Optional	For example: MARCHÉ DES AGRICULTEURS DE GEORGETOWN: effectif à partir du samedi 2 juin et jusqu'au 13 octobre 2018: le marché annuel des agriculteurs de Georgetown se tiendra de 8:00 à 12:30

2.3.1.1 ServiceAlertAll – Line

Description

This is collection of the affected lines associated with the message

			Maxim	Required Field?	Notes
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Attribute Name	Description	Data Type	um Length	(Mandatory / Optional)																	
Code	This indicates the unique identifier for the line	varchar	10	Mandatory	For example: <table border="1" data-bbox="1156 420 1495 730"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>LW</td> <td>Lakeshore West</td> </tr> <tr> <td>LE</td> <td>Lakeshore East</td> </tr> <tr> <td>GT</td> <td>Kitchener</td> </tr> <tr> <td>ST</td> <td>Souffville</td> </tr> <tr> <td>RH</td> <td>Richmond Hill</td> </tr> <tr> <td>BI</td> <td>Barrie</td> </tr> <tr> <td>MI</td> <td>Milton</td> </tr> </tbody> </table>	Code	Description	LW	Lakeshore West	LE	Lakeshore East	GT	Kitchener	ST	Souffville	RH	Richmond Hill	BI	Barrie	MI	Milton
Code	Description																				
LW	Lakeshore West																				
LE	Lakeshore East																				
GT	Kitchener																				
ST	Souffville																				
RH	Richmond Hill																				
BI	Barrie																				
MI	Milton																				

2.3.1.2 ServiceAlertAll – Stops

Description

This is the affected stops associated with the message

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Name	This is assigned stop / station name	varchar	255	Mandatory	
Code	This indicates unique identifier for the stops where a message is displayed	varchar	50	Mandatory	For example: MR

2.3.1.3 ServiceAlertAll – Trips

Description

This is the affected trips associated with the message

Attribute Name	Description	Data	Maximum Length	Required Field? (Mandatory /	Notes
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		Type		Optional)	
Number	This a unique alphanumeric trip code.	varchar	50	Mandatory	For example: 806

2.3.2 InformationAlertAll

Description

This function returns the current messages for the Information Alert message class by date

Parameter List: N/A

Returns Value: A collection of current Information Messages for the branch and their associated entities where the Message.messageClass = "INFALEART"

Attribute Name	Description	Data Type	Maximun Length	Required Field? (Mandatory / Optional)	Notes
Code	This is a unique alphanumeric string identifier for a message	varchar	50	Mandatory	For example: M0000126721
Category	This indicate the service category associated with the message	varchar	100	Optional	For example: Service Disruption
SubCategory	This indicates the subcategory of the service category associated with the message	varchar	100	Optional	For example: Train Service Suspension
ParentCode	This is a code related to any pervious message – if	varchar	50	Optional	For example: M0000109461

	any				
Status	This indicates the status of the message	varchar	10	Optional	Possible values are: INIT – Initial CORR – Corrected FINAL – Final UPD - Updated
PostedDateTime	This indicates the date and time when the message was initially posted	varchar	50	Optional	Display format: yyyy-mm-ddThh:mm:ss.nnn example: 2018-03-11T12:45:27:000
SubjectEnglish	This is English subject text display	varchar	255	Optional	
SubjectFrench	This is French subject text display	varchar	255	Optional	
BodyEnglish	This is English body text display	varchar	MAX	Optional	
BodyFrench	This is French body text display	varchar	MAX	Optional	

2.3.2.1 InformationAlertAll – Line

Description

This is collection of the affected lines associated with the message

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes						
Code	This indicates the unique identifier for the line	varchar	10	Mandatory	For example: <table border="1" data-bbox="1156 1667 1495 1780"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>LW</td> <td>Lakeshore West</td> </tr> <tr> <td>LE</td> <td>Lakeshore East</td> </tr> </tbody> </table>	Code	Description	LW	Lakeshore West	LE	Lakeshore East
Code	Description										
LW	Lakeshore West										
LE	Lakeshore East										

					GT	Kitchener
					ST	Souffville
					RH	Richmond Hill
					BI	Barrie
					MI	Milton

2.3.2.2 InformationAlertAll – Stops

Description

This is the affected stops associated with the message

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Name	This is assigned stop / station name	varchar	255	Mandatory	
Code	This indicates unique identifier for the stops where a message is displayed	varchar	50	Mandatory	For example: MR

2.3.2.3 InformationAlertAll – Trip

Description

This is the affected trips associated with the message

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Number	This a unique alphanumeric trip code	varchar	50	Mandatory	For example: For example: 806

2.3.3 MarketingAlertAll

Description

This function returns the current messages for the Marketing Alert message class by date.

Parameter List: N/A

Returns Value: A collection of current Marketing Alert Messages from the branch and their associated entities where the Message.messageClass = "MKALERT"

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Code	This is a unique alphanumeric string identifier for a message	varchar	50	Mandatory	For example: M0000126721
Category	This indicate the service category associated with the message	varchar	100	Optional	For example: Service Disruption
SubCategory	This indicates the subcategory of the service category associated with the message	varchar	100	Optional	For example: Train Service Suspension
ParentCode	This is a code related to any pervious message – if any	varchar	50	Optional	For example: M0000109461
Status	This indicates the status of the message	varchar	10	Optional	Possibel values are: INIT – Initial

					CORR – Corrected FINAL – Final UPD - Updated
PostedDateTime	This indicates the date and time when the message was initially posted	varchar	50	Optional	Display format: yyyy-mm-ddThh:mm:ss.nnn example: 2018-03-11T12:45:27:000
SubjectEnglish	This is English subject text display	varchar	255	Optional	
SubjectFrench	This is French subject text display	varchar	255	Optional	
BodyEnglish	This is English body text display	varchar	MAX	Optional	
BodyFrench	This is French body text display	varchar	MAX	Optional	

2.3.3.1 MarketingAlertAll – Line

Description

This is collection of the affected lines associated with the message

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes																
Code	This indicates the unique identifier for the line	varchar	10	Mandatory	For example: <table border="1" data-bbox="1156 1486 1495 1793"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>LW</td> <td>Lakeshore West</td> </tr> <tr> <td>LE</td> <td>Lakeshore East</td> </tr> <tr> <td>GT</td> <td>Kitchener</td> </tr> <tr> <td>ST</td> <td>Souffville</td> </tr> <tr> <td>RH</td> <td>Richmond Hill</td> </tr> <tr> <td>BI</td> <td>Barrie</td> </tr> <tr> <td>MI</td> <td>Milton</td> </tr> </tbody> </table>	Code	Description	LW	Lakeshore West	LE	Lakeshore East	GT	Kitchener	ST	Souffville	RH	Richmond Hill	BI	Barrie	MI	Milton
Code	Description																				
LW	Lakeshore West																				
LE	Lakeshore East																				
GT	Kitchener																				
ST	Souffville																				
RH	Richmond Hill																				
BI	Barrie																				
MI	Milton																				

2.3.3.2 MarketingAlertAll – Stops

Description

This is the affected stops associated with the message

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Name	This is assigned stop / station name	varchar	255	Mandatory	
Code	This indicates unique identifier for the stops where a message is displayed	varchar	50	Mandatory	For example: MR

2.3.3.3 MarketingAlertAll – Trip

Description

This is the affected trips associated with the message

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Number	This a unique alphanumeric trip code	varchar	50	Mandatory	For example: For example: 806

2.3.4 UnionDepartureAll

Description

This is the nearest departures for buses and trains from Union Station

Parameter List: N/A

Returns Value: All departures and all related trips and their stops

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Info	The information about the trip	varchar	255	Optional	For example: Bus / Autobus Terminal
TripNumber	The unique alpha-numeric string identifier of the trip.	varchar	10	Mandatory	For example: 00001
Platform	The platform number on the station where the train or bus waiting	varchar	25	Optional	
Service	The bus or train service line name	varchar	50	Optional	For example: Can-Ar Haliburton
ServiceType	A code indicating the service type	char	1	Mandatory	For example: T = Train B = Bus
Time	The last updated date and time from	datetime			Display format: (yyyy-mm-ddThh:mm:ss;

	the train or Bus				example: 2018-06-28 17:00:00
--	------------------	--	--	--	------------------------------

2.3.4.1 UnionDeparturesAll – Stops

Description

This describes all stops for a trip

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Name	The stop's name.	varchar	255	Mandatory	For example: Fenelon Falls
Code	The unique alphanumeric code identifying the station/stop	varchar	50	Mandatory	

2.3.5 ServiceGuarantee

Description

This is the trip number for the day given

Parameter List: OperationalDay – the day (yyyymmdd) for the day of interest
tripNumber: the trip number for the trip of interest

Returns Value: Stops indication where the service guarantee applied for that day and trip number

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Code	A unique code identifying the station from which the service departs	varchar	25	Mandatory	
Scope	Indicates if a fare guarantee is in effect. Y = yes, a fare guarantee is in effect; N = no guarantee in effect.	varchar	25	Optional	
ReasonEn	The English message specifying the reason	varchar	MAX	Optional	
ReasonFr	The French translation specifying the reason	varchar	MAX	optional	

2.3.6 ExceptionsTrain

Description

This gives information regarding exceptions to normal or advertised train schedules

Parameter List: N/A

Returns Value: Returns the list of exceptions based on provided train schedule information.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
TripNumber	This is unique alphanumeric trip code which links trip to a schedule	nvarchar	10	Mandatory	For example: E158D
TripName	This gives the name of the trip the vehicle is traveling	nvarchar	255	Optional	
IsCancelled	This indicates if trip is cancelled	bit		Mandatory	Returns TRUE = 1 if trip is cancelled. Otherwise, it returns FALSE = 0.
IsOverride	This indicate if the trip is override.	bit		Mandatory	Returns TRUE = 1 if trip is override. Otherwise, it returns FALSE = 0.

2.3.6.1 ExceptionsTrain – Stop

Description

This gives information about exceptions to scheduled train stops

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Order	This indicates the sequential order of the trip.	int		Mandatory	For example: 1
ID	Unique identifier of the station	int		Mandatory	For example: 907
SchArrival	This indicates the schedule arrival of the trip	nvarchar	50	Optional	For example: null
SchDeparture	This indicates the schedule departure of the trip.	nvarchar	50	Optional	For example: null
Name	This gives the name of the station	nvarchar	255	Optional	For example: Union Station
IsStopping	This indicates if trip is stopping	bit		Mandatory	Returns TRUE if trip is stopping. Otherwise, it returns FALSE.
IsCancelled	This indicates if train is cancelled.	bit		Mandatory	Returns TRUE if trip is cancelled.

					Otherwise, it returns FALSE.
IsOverride	This indicates if trip is override.	bit		Mandatory	Returns TRUE if trip is override. Otherwise, it returns FALSE.
Code	This is unique alphanumeric code identifying the station	nvarchar	50	Optional	For example: UN
ActualTime	This specifies the actual time.	nvarchar	50	Optional	For example; null
ServiceType	This is a code indicating if it is a train or bus	char	1	Mandatory	For example: T = Train

2.3.7 ExceptionsBus

Description

This gives information regarding exceptions to normal or advertised bus schedules

Parameter List: N/A

Returns Value: Returns the list of exceptions based on provided scheduled bus information.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory /	Notes
----------------	-------------	-----------	----------------	------------------------------	-------

				Optional	
TripNumber	This is unique alphanumeric trip code which links trip to a schedule	nvarchar	10	Mandatory	For example: E156D
TripName	This gives the name of the trip the vehicle is traveling	nvarchar	255	Optional	For example: King Ave E @ Beaver St. N. 05:53 – Oshawa GO 06:48
IsCancelled	This indicates if trip is cancelled	bit		Mandatory	Returns TRUE = 1 if trip is cancelled. Otherwise, it returns FALSE = 0.
IsOverride	This indicate if the trip is override.	bit		Mandatory	Returns TRUE = 1 if trip is override. Otherwise, it returns FALSE = 0.

2.3.7.1 ExceptionsBus – Stop

Description

This gives information about exceptions to scheduled bus stops

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Order	This indicates the sequential order of the trip.	int		Mandatory	For example: 1
ID	Unique identifier of the station	int		Mandatory	
SchArrival	This indicates the schedule arrival of the trip	nvarchar	50	Optional	For example: null
SchDeparture	This indicates the schedule departure of the trip.	nvarchar	50	Optional	For example: null
Name	This gives the name of the station	nvarchar	255	Optional	For example: Clark Blvd @ Kings Cross Rd
IsStopping	This indicates if trip is stopping	bit		Mandatory	Returns TRUE if trip is stopping. Otherwise, it returns FALSE.
IsCancelled	This indicates if train is cancelled.	bit		Mandatory	Returns TRUE if trip is cancelled. Otherwise, it returns

					FALSE.
IsOverride	This indicates if trip is override.	bit		Mandatory	Returns TRUE if trip is override. Otherwise, it returns FALSE.
Code	This is unique alphanumeric code identifying the station	nvarchar	50	Optional	For example: 01185
ActualTime	This specifies the actual time.	nvarchar	50	Optional	For example; null
ServiceType	This is a code indicating if it is a train or bus	char	1	Mandatory	For example: B = Bus

2.3.8 ExceptionAll

Description

This gives information regarding exceptions to normal or advertised schedules for both trains and buses

Parameter List: N/A

Returns Value: Returns the list of exceptions based on provided train & bus schedule information.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
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TripNumber	This is unique alphanumeric trip code which links trip to a schedule	nvarchar	10	Mandatory	For example: 96132
TripName	This gives the name of the trip the vehicle is traveling	nvarchar	255	Optional	For example: Ajax GO 07:00 – Finch Bus Terminal 08:00
IsCancelled	This indicates if trip is cancelled	bit		Mandatory	Returns TRUE = 1 if trip is cancelled. Otherwise, it returns FALSE = 0.
IsOverride	This indicate if the trip is override.	bit		Mandatory	Returns TRUE = 1if trip is override. Otherwise, it returns FALSE = 0.

2.3.8.1 ExceptionsAll– Stop

Description

This gives information about exceptions to scheduled bus & train stops

Attribute Name	Description	Data Type	Maximum	Required Field?	Notes
----------------	-------------	-----------	---------	-----------------	-------

			Length	(Mandatory / Optional)	
Order	This indicates the sequential order of the trip.	int		Mandatory	For example: 3
ID	Unique identifier of the station	int		Mandatory	
SchArrival	This indicates the schedule arrival of the trip	nvarchar	50	Optional	For example: null
SchDeparture	This indicates the schedule departure of the trip.	nvarchar	50	Optional	For example: null
Name	This gives the name of the station	nvarchar	255	Optional	For example: Bramalea Rd @ Balmoral Dr
IsStopping	This indicates if trip is stopping	bit		Mandatory	Returns TRUE if trip is stopping. Otherwise, it returns FALSE.
IsCancelled	This indicates if train is cancelled.	bit		Mandatory	Returns TRUE if trip is cancelled. Otherwise, it returns FALSE.

IsOverride	This indicates if trip is override.	bit		Mandatory	Returns TRUE if trip is override. Otherwise, it returns FALSE.
Code	This is unique alphanumeric code identifying the station	nvarchar	50	Optional	For example: 02680
ActualTime	This specifies the actual time.	nvarchar	50	Optional	For example; null
ServiceType	This is a code indicating if it is a train or bus	char	1	Mandatory	For example: B = Bus

2.4 Service At Glance

Description

This functions returns all currently in service trips for trains including UP Express and buses. The ServiceataGlance contains the following functions:

- ServiceAtaGlance - BusesAll
- ServiceAtaGlance - TrainsAll

2.4.1 ServiceAtaGlance – *BusesAll (Trips)*

Description

This returns all bus trips that are in service

Parameter List: N/A

Returns Value: All bus trips that are in service

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
BusType	A description of the bus as either "Double Decker" or "Coach"	varchar	25	Mandatory	For example: Coach
TripNumber	A trip's unique identifier that links it to a schedule.	varchar	10	Mandatory	For example: 12121
StartTime	A trip's scheduled departure time.	varchar	5	Mandatory	For example: 06:35
EndTime	Scheduled arrival time at destination point.	varchar	5	Mandatory	For example: 08:15
LineCode	The code representing the bus line/route.	varchar	2	Optional	For example: 12 – this represents "Niagara Falls"
RouteNumber	The Line Code or route variance code.	varchar	2	Optional	For example: Route Number 12B vs. Line Code 12. When the Route Number is the same as the Line Code, a normal

					route was taken. When the Route Number includes a letter this shows there was a change to the normal route
VariantDir	When there is a change to the normal route, the direction of this route variant –	varchar	5	Optional	For example: it can either be N (North) or S (South), or E (East) or W (West)
Display	The route, Variance, and final destination name	varchar	128	Optional	For example: 12 – Niagara Falls
Latitude	The bus current latitude coordinate; with the Longitude, this gives the bus location	Float		Mandatory	For example: 43.09735
Longitude	The bus current longitude coordinate; with the Latitude, this gives the bus location	Float		Mandatory	For example: -79.085317
IsInMotion	Indicates a moving bus	bit		Mandatory	For example: (true = moving vehicle, false = vehicle is not moving)
DelaySeconds	An expected delay	int		Mandatory	For example: 1284

	time, in seconds. A negative value indicates the bus is ahead of schedule.				
Course	Trip direction	Numeric		Mandatory	For example: 0.0
FirstStopCode	Unique identifier of the trip starting stop.	varchar	10	Optional	For example: 00139
LastStopCode	Unique identifier of the trip destination stop.	varchar	10	Optional	For example: 02408
PrevStopCode	Unique identifier of the last station where the bus stopped at.	varchar	10	Optional	For example: 02646
NextStopCode	Unique identifier of the next scheduled station stop.	varchar	10	Optional	For example: 02404
AtStationCode	Unique identifier of a station the bus is currently at.	varchar	10	Optional	For example: 02404
ModifiedDate	The trip's last update date and timestamp.	dateTime		Mandatory	Display Format: yyyy-mm-ddThh:mm:ss.nnn; For example: 2018-07-03 08:26:24

2.4.2 ServiceAtAGlance – *TrainsAll (Trips)*

Description

This returns all train trips that are in service

Parameter List: N/A

Returns Value: A collection of train trips

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Cars	This indicate the number of cars in the train.	varchar	10	Mandatory	For example: it can be 6, 10 or 12
TripNumber	A trip's unique identifier that is also used in schedules	varchar	10	Mandatory	For example: 166
StartTime	A trip's scheduled departure time.	varchar	5	Mandatory	For example: 08:26
EndTime	Scheduled arrival time at destination point.	varchar	5	Mandatory	For example: 09:30
LineCode	The code representing the train line	varchar	2	Optional	For example: MI
RouteNumber	The Line Code for the train trip.	varchar	2	Optional	For example: MI

VariantDir	When there is a change to the normal route, the direction of this route variant –	varchar	5	Optional	For example: it can either be N (North) or S (South), or E (East) or W (West)
Display	The corridor and final destination name	varchar	128	Optional	For example: MI – Union Station
Latitude	The train’s current latitude coordinate; with the Longitude, this gives the train’s location	Float		Mandatory	For example: 43.5974
Longitude	The train’s current longitude coordinate; with the Latitude, this gives the train’s location	Float		Mandatory	For example: -79.7528
IsInMotion	Indicates a moving train	bit		Mandatory	For example: (true = moving vehicle, false = vehicle is not moving)
DelaySeconds	An expected delay time, in seconds. A negative value indicates the train is ahead of schedule.	int		Mandatory	For example: 1714
Course	Trip direction	Numeric		Mandatory	For example:

					112.0
FirstStopCode	Unique identifier of the trip starting stop.	varchar	10	Optional	For example: ML
LastStopCode	Unique identifier of the trip destination stop.	varchar	10	Optional	For example: UN
PrevStopCode	Unique identifier of the last station where the train stopped at.	varchar	10	Optional	For example: ME
NextStopCode	Unique identifier of the next scheduled station stop.	varchar	10	Optional	For example: SR
AtStationCode	Unique identifier of a station the train is currently at.	varchar	10	Optional	
ModifiedDate	The trip's last update date and timestamp.	dateTime		Mandatory	Display Format: yyyy-mm-ddThh:mm:ss.nnn; For example: 2018-07-03 09:06:35

2.5 Schedule

Description

Schedule contains the following functions:

- ScheduleJourney

- ScheduleJourneyToStopCode
- ScheduleLine
- ScheduleLineAll
- ScheduleLineStop
- ScheduleTrip

2.5.1 ScheduleJourney

Description

This displays a journey lines for rail lines and bus routes, trips, stops and transfers. It also provide details for a journey, including traveling duration, direction, distance and a list of intermediate stops for a trip.

Parameter List:

- date – the date (yyyy-mm-dd)
- fromStopCode – departure stop
- toStopCode – destination stop
- startTime – time of day (e.g., 0500 means 5:00 am)
- maxJourney – the maximum number of Journeys to return

Returns Value: A journey and its date, departure and destination stops and start time.

2.5.1.1 ScheduleJourney - Journey

Description

This specifies the journey departure station, arrival station and the start time of a journey

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
From	This indicates the journey's departure Station Code	varchar	50	Mandatory	For example: BO- This is for rail only. the bus has 6 digits
To	This indicates the journey's arrival Station Code (a	varchar	50	Mandatory	For example: UN-

	unique code identifying the station)				This is for rail only. the bus has 6 digits
Time	This indicates the start time of the journey	Time		Mandatory	Display format: hh:mm:ss . For example: 19:59
Date	This indicates the effective date of the journey	Date		Mandatory	Display format yyyy-mm-dd .For example: 2018-04-16

2.5.1.2 ScheduleJourney –Services

Description

This describes the services for a journey

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes																
Colour	This indicates the colour code for the Line Service	varchar	50	Optional	<p>The values and colour meanings are as follows:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>#FF0D00</td> <td>Lakeshore East</td> </tr> <tr> <td>#98002E</td> <td>Lakeshore West</td> </tr> <tr> <td>#003767</td> <td>Barrie</td> </tr> <tr> <td>#F57F25</td> <td>Milton</td> </tr> <tr> <td>#00853E</td> <td>Kitchener</td> </tr> <tr> <td>#794500</td> <td>Stouffville</td> </tr> <tr> <td>#0099C7</td> <td>Richmond Hill</td> </tr> </tbody> </table> <p>Note: This is for rail only.</p>	Code	Meaning	#FF0D00	Lakeshore East	#98002E	Lakeshore West	#003767	Barrie	#F57F25	Milton	#00853E	Kitchener	#794500	Stouffville	#0099C7	Richmond Hill
Code	Meaning																				
#FF0D00	Lakeshore East																				
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#F57F25	Milton																				
#00853E	Kitchener																				
#794500	Stouffville																				
#0099C7	Richmond Hill																				
Type	This describes the Service Type.	char	1	Mandatory	<p>The Service Types is as follows:</p> <ul style="list-style-type: none"> • R – Rail • B- Bus <p>Or a combination of both (RB- Rail and Bus)</p>																

Direction	This is the direction of the service.	char	1	Mandatory	For example: N – North S – South E – East W – West
Code	This indicates the assigned unique code of the service	varchar	10	Mandatory	For example: 01
StartTime	This is the Trip departure time from the Start Station	datetime		Mandatory	Display format: yyyy-mm-ddThh:mm:ss. For example: 2018-04-16 20:20:00
EndTime	This is the Trip Arrival time at the destination Station	datetime		Mandatory	Display format: yyyy-mm-ddThh:mm:ss. example: 2018-04-16 21:11:00
Duration	This is the Total Duration for the Trip	datetime		Mandatory	(hh:mm:ss) for example: 00:51:00
Accessible	This is the code used to describe the accessibility of the Stop	varchar	5	Mandatory	Possible values include the following: R – Rail accessible B – Bus accessible RB – Rail and bus accessible
StartSortTime	This indicate the start of departure sort time	varchar	10	Mandatory	For example: 2020
EndSortTime	This indicate the end of departure sort time	varchar	10	Mandatory	For example: 2111
TripHash	This enables real-time responses to data queries	varchar	10	Mandatory	For example: 932
TransferCount	This indicates maximum	varchar	10	Optional	

	number of transfer count for a particular Trip				
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2.5.1.3 ScheduleJourney – Trips

Description

This describes bus and train trips for a line

Attribute Name	Description	Data Type	New Additional Attribute (Yes/No)	Required Field? (Mandatory / Optional)	Notes
Number	This gives unique identifier of the Trip	varchar	10	Mandatory	For example: 932 Note: This indicate the route number for bus
Display	This is the corridor or route number and final destination name	varchar	128	Optional	For example: LW - Union Station
Line	This is the code of the line that the trip is running on.	varchar	50	Optional	For example: LW – Lakeshore West
Direction	This indicates the direction of travel for the trip.	varchar	1	Mandatory	For example: S – South N – North E – East W - West
LineVariant	This is information that indicate the line variant of the trip.	varchar	10	Optional	For example: LW
Type	This indicates the Service Type	char	1	Mandatory	For example: T – Train

2.5.1.4 ScheduleJourney – Stops

Description

This is a collection of stops for a trip / line

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Code	This the assigned unique code of the Stop	varchar	50	Mandatory	For example: BO
Order	This is the sequence in which the stop occurs along the trip. This is used to order the stops.	int		Mandatory	For example: 4
Time	This is the scheduled time for the stops	datetime		Manadatory	Display format: hh:mm:ss. For example: 20:20
isMajor	This is to indicate (flag) if the stop is Major (true) or not (false). Major Stop is the location that serves as a transfer point between a large number of route. Minor Stop is the location where the bus stop for a short period of time to drop off or pick up passengers.	bit		Mandatory	Returns TRUE if stop is Major. Otherwise, it returns FALSE.
SortingTime	This define how the departures are sorted.	datetime		Mandatory	By default, the departures are returned sorted by scheduled time. The

					default is SortTime = time. For example: 2020 This is departure time returned sorted by scheduled time
DestinationStopCode	Unique alphanumeric code identifying the trip destination stop / station	varchar	10	Mandatory	For example: UN
DepartFromCode	Unique identifier of the stop the service departs	varchar	10	Mandatory	For Example: BO
DepartFromAlternativeCode	Unique identifier of alternative stop which the service can depart	varchar	10	Mandatory	No data provided. Return "null"
DepartFromTimingPoint	This indicates a stop that a service departs at a scheduled time. This allows passenger to estimate when a bus would get to a stop before or after a timepoint.	varchar	10	Mandatory	For Example: brontS This indicate a stop not a departure time
TripPatternID	Unique identifier of a sequence of interaction that occurs within a trip	int		Mandatory	For Example: 278

2.5.1.5 ScheduleJourney – Transfers

Description

This indicates GO transfer time and order of the transfer

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Time	This is the start time of the transfer	datetime		Mandatory	Display format: hh:mm:ss. For example: 08:55
Code	This the assigned unique code of the transfer	varchar	10	Mandatory	For example: UN
Order	This indicates the stopping sequence or order of the transfer	int		Mandatory	For example: 5

2.5.1.6 ScheduleJourney – TransferLinks

Description

This indicates GO transfers from the beginning of the journey to reach the destination

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
ToStopCode	This is the identifier of the next stop after the transfer or where a connection between routes ends.	Varchar	10	Mandatory	For example: UN
ToTrip	This is the identifier of the next trip after the transfer	varchar	10	Mandatory	For example: 709
FromStopCode	This is the identifier of the	varchar	10	Mandatory	For example: UN

	stop prior to the transfer or where a connection between routes begins.				
FromTrip	This is the identifier of the trip ending prior to the transfer	varchar	10	Mandatory	For example: 431
TransferDuration	This indicate the time between the last stop in the previous trip and the first stop in the next stop	Time		Optional	Calculated by subtracting the (from) Stop.Time from the (to) Stop.Time Display format: mm:ss

2.5.2 ScheduleJourneyToStopCode

Description

This displays a journey's lines both rail and bus routes, trips, stops and transfers

Parameter List:

- date – the date (yyyy-mm-dd)
- fromStopCode – departure stop
- startTime – time of day (e.g., 0500 means 5:00 am)
- maxJourney – the maximum number of Journeys to return

Returns Value: A journey and its date, departure stop and start time.

2.5.2.1 ScheduleJourneyToStopCode - *SchJourneys*

Description

This specifies the journey departure station, arrival station and the start time of a journey

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
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From	This indicates the journey's departure Station Code	varchar	50	Mandatory	For example: BO- This is for rail only. the bus has 6 digits
To	This indicates the journey's arrival Station Code (a unique code identifying the station)	varchar	50	Mandatory	For example: UN- This is for rail only. the bus has 6 digits
Time	This indicates the start time of the journey	Time		Mandatory	Display format: hh:mm:ss . For example: 19:59
Date	This indicates the effective date of the journey	Date		Mandatory	Display format yyyy-mm-dd . For example: 2018-04-16

2.5.2.2 ScheduleJourneyToStopCode –Services

Description

This describes the services for a journey

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes																
Colour	This indicates the colour code for the Line Service	varchar	50	Optional	The values and colour meanings are as follows: <table border="1" data-bbox="1203 1493 1539 1766"> <thead> <tr> <th>Code</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>#FF0D00</td> <td>Lakeshore East</td> </tr> <tr> <td>#98002E</td> <td>Lakeshore West</td> </tr> <tr> <td>#003767</td> <td>Barrie</td> </tr> <tr> <td>#F57F25</td> <td>Milton</td> </tr> <tr> <td>#00853E</td> <td>Kitchener</td> </tr> <tr> <td>#794500</td> <td>Stouffville</td> </tr> <tr> <td>#0099C7</td> <td>Richmond Hill</td> </tr> </tbody> </table> Note: This is for rail only.	Code	Meaning	#FF0D00	Lakeshore East	#98002E	Lakeshore West	#003767	Barrie	#F57F25	Milton	#00853E	Kitchener	#794500	Stouffville	#0099C7	Richmond Hill
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Type	This describes the Service Type.	char	1	Mandatory	The Service Types is as follows: <ul style="list-style-type: none"> • R – Rail • B- Bus Or a combination of both (RB- Rail and Bus)
Direction	This is the direction of the service.	char	1	Mandatory	For example: N – North S – South E – East W – West
Code	This indicates the assigned unique code of the service	varchar	10	Mandatory	For example: 01
StartTime	This is the Trip departure time from the Start Station	datetime		Mandatory	Display format: yyyy-mm-ddThh:mm:ss. For example: 2018-04-16 20:20:00
EndTime	This is the Trip Arrival time at the destination Station	datetime		Mandatory	Display format: yyyy-mm-ddThh:mm:ss. example: 2018-04-16 21:11:00
Duration	This is the Total Duration for the Trip	datetime		Mandatory	(hh:mm:ss) for example: 00:51:00
Accessible	This is the code used to describe the	varchar	5	Mandatory	Possible values include the following: R – Rail accessible

	accessibility of the Stop				B – Bus accessible RB – Rail and bus accessible
StartSortTime	This indicate the start of departure sort time	varchar	10	Mandatory	For example: 2020
EndSortTime	This indicate the end of departure sort time	varchar	10	Mandatory	For example: 2111
TripHash	This enables real-time responses to data queries	varchar	10	Mandatory	For example: 932
TransferCount	This indicates maximum number of transfer count for a particular Trip	varchar	10	Optional	

2.5.2.3 ScheduleJourneyToStopCode – Trips

Description

This describes bus and train trips for a line

Attribute Name	Description	Data Type	New Additional Attribute (Yes/No)	Required Field? (Mandatory / Optional)	Notes
Number	This gives unique identifier of the Trip	varchar	10	Mandatory	For example: 932 Note: This indicate the route number for bus
Display	This is the corridor or route number and final destination name	varchar	128	Optional	For example: LW - Union Station
Line	This is the code of	varchar	50	Optional	For example:

	the line that the trip is running on.				LW – Lakeshore West
Direction	This indicates the direction of travel for the trip.	varchar	1	Mandatory	For example: S – South N – North E – East W - West
LineVariant	This is information that indicate the line variant of the trip.	varchar	10	Optional	For example: LW
Type	This indicates the Service Type	char	1	Mandatory	For example: T – Train

2.5.2.4 ScheduleJourneyToStopCode –Stops

Description

This is a collection of stops for a trip / line

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Code	This the assigned unique code of the Stop	varchar	50	Mandatory	For example: BO
Order	This is the sequence in which the stop occurs along the trip. This is used to order the stops.	int		Mandatory	For example: 4
Time	This is the scheduled time for the stops	datetime		Manadatory	Display format: hh:mm:ss. For example: 20:20
isMajor	This is to indicate	bit		Mandatory	Returns TRUE

	(flag) if the stop is Major (true) or not (false). Major Stop is the location that serves as a transfer point between a large number of route. This Minor Stop is the location where the bus stop for a short period of time to drop off or pick up passengers.				if stop is Major. Otherwise, it returns FALSE.
SortingTime	This define how the departures are sorted.	datetime		Mandatory	By default, the departures are returned sorted by scheduled time. The default is SortTime = time. For example: 2020 This is departure time returned sorted by scheduled time
DestinationStopCode	Unique alphanumeric code identifying the trip destination stop / station	varchar	10	Mandatory	For example: UN
DepartFromCode	Unique identifier of the stop the service departs	varchar	10	Mandatory	For Example: BO
DepartFromAlternati	Unique identifier	varchar	10	Mandatory	No data

veCode	of alternative stop which the service can depart				provided. Return "null"
DepartFromTimingPoint	This indicates a stop that a service tries departs at a scheduled time. This allows passenger to estimate when a bus would get to a stop before or after a timepoint.	varchar	10	Mandatory	For Example: brontS This indicate a stop not a departure time
TripPatternID	Unique identifier of a sequence of interaction that occurs within a trip	int		Mandatory	For Example: 278

2.5.2.5 ScheduleJourneyToStopCode – *Transfers*

Description

This indicates GO transfer time and order of the transfer

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Time	This is the start time of the transfer	datetime		Mandatory	Display format: hh:mm:ss. For example: 08:55
Code	This the assigned unique code of the transfer	varchar	10	Mandatory	For example: UN
Order	This indicates the stopping sequence or order of the transfer	int		Mandatory	For example: 5

2.5.2.6 ScheduleJourneyToStopCode – TransferLinks

Description

This indicates GO transfers from the beginning of the journey to reach the destination

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
ToStopCode	This is the identifier of the next stop after the transfer or where a connection between routes ends.	Varchar	10	Mandatory	For example: UN
ToTrip	This is the identifier of the next trip after the transfer	varchar	10	Mandatory	For example: 709
FromStopCode	This is the identifier of the stop prior to the transfer or where a connection between routes begins.	varchar	10	Mandatory	For example: UN
FromTrip	This is the identifier of the trip ending prior to the transfer	varchar	10	Mandatory	For example: 431
TransferDuration	This indicate the time between the last stop in the previous trip and the first stop in the next stop	Time		Optional	Calculated by subtracting the (from) Stop.Time from the (to) Stop.Time Display format: mm:ss

2.5.3 ScheduleLine

Description

This indicates line details based on date, line code and direction

Parameter List: date – the date in yyyyymmdd format for the date of interest

- lineCode – the line of interest
- lineDirection – the line direction of interest

Returns Value: The trips and their stops for the date, line and line direction given

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory/ Optional	Notes
Code	A two character corridor code (rail) or two digit route number (bus) for the line;	varchar	2	Optional	For example: LW = Lakeshore West rail corridor 16 = Hamilton Express bus route
Direction	The direction of the line	char	1	Mandatory	For example: N = North, S=South, E = East, W=West
Type	A code indicating if it is a train (T) or bus (B)	char	1	Mandatory	For example: T=Train B=Bus

2.5.3.1 ScheduleLine – Trip

Description

This identify the trip

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory/Optional	Notes
Number	Unique identifier of the trip	varchar	50	Mandatory	
Display	The route number and destination.	varchar	128	Optional	For example: 38 = Malton GO

2.5.3.2 ScheduleLine –Stops

Description

This indicates stops on a trip

Attribute Name	Description	Data Type	Maximum Length	Require Field? Mandatory/Optional	Notes
Code	Unique code of the stop	varchar	50	Mandatory	
Order	Stopping sequence: order of the stop	int		Mandatory	
Time	Scheduled arrival time for the trip arrived at each stop.	datetime		Mandatory	Display Format: yyyy-mm-ddThh:mm:ss. For example: 2015-09-02T13:11:00)

SortingTime	This define how the departures are sorted	datetime		Mandatory	
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2.5.4 ScheduleLineAll

Description

This is the lines in effect for the date provided

Parameter List: date – the date in yyyyymmdd format

Returns Value: Lines in effect for the given date

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory/ Optional	Notes
Name	Assigned name for the Line (rail corridor or bus route)	varchar	100	Optional	For example: Niagara Falls Train Meet Service
Code	A unique identifier code for a Line.	varchar	10	Mandatory	For example: 12
IsBus	A flag indicating if it is a bus trip (true) or not (false).	bit		Mandatory	
IsTrain	A flag indicating if it is a train trip (true) or not	bit		Mandatory	

	(false).				
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2.5.4.1 ScheduleLineAll –Variant

Description

This indicates the variant route for the trip

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory /Optional	Notes
Code	A variant route for the Line. It is the Line Code with a letter appended to identify the variant route.	varchar	10	Mandatory	For example: 12A
Display	This is the line or route number and final destination name.	varchar	128	Optional	For example: 38 = Malton GO
Direction	This indicates direction of travel for the trip.	char	1	Mandatory	For example: E

2.5.5 ScheduleLineStop

Description

This indicates the line stops in effect for the Date, line code and the given line direction.

Parameter List: date – the date in yyyyymmdd format for the date of interest

- lineCode – the line of interest
- lineDirection – the line direction of interest

Returns Value: Lines and their stops for the date, and line code and the given direction.

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory / Optional	Notes
Code	The direction of the line	varchar	10	Mandatory	Possible value: N-North, S-South, E-East, W-West For Union Station, the direction is either "IN" to Union Station or "OUT" of Union Station.
Direction	The Direction of the Line	char	1	Mandatory	For example: E
Display	This is the line or route number and final destination name.	varchar	128	Optional	For example: 38 = Malton GO

2.5.5.1 ScheduleLineStop –Stop

Description

This is a collection of Stops for a line

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory/ Optional	Notes
Code	Assigned unique code of the stop	varchar	50	Mandatory	
Order	Stopping sequence: order of the stops	int	50	Mandatory	
Name	Assigned station/stop name	varchar	255	Optional	
Type	Indicate Service Type as Rail (R) Bus (B) or a combination of Rail and Bus (RB)	char	1	Mandatory	Possible value: <ul style="list-style-type: none"> • R = Rail • B = Bus • RB = Rail&Bus
isMajor	This is to indicate (flag) if the stop is Major (true) or not (false). Major Stop is the location that serves as a transfer point between a large number	bit		Mandatory	Returns TRUE if stop is Major. Otherwise, it returns FALSE.

	of route. Minor Stop is the location where the bus stop is for a short period of time to drop off or pick up.				
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2.5.6 ScheduleTrip

Description

Information about schedule trip.

Parameter List: N/A

Return Values: This returns the schedule information for the requested trip.

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory/ Optional	Notes
Number	This is a unique alphanumeric trip code which links trip to schedule	varchar	50	Mandatory	For example: 27671
Destination	This identify the trip destination code	nvarcahr	50	Mandatory	For example: 00194
Longitude	This is the current longitude coordinate of the	numeric		Optional	

	vehicle with the Latitude which gives the vehicle's location				
Latitude	This is the current latitude coordinate of the vehicle with the Longitude which gives the vehicle's location	numeric		Optional	
Status	This is code describes the delay status of the Trip	char	1	Optional	For example: S = Stop M= Moving
TimeStamp	This identify the time of the trip.	datetime		Mandatory	For example: 2018-06-26:15:14

2.5.6.1 ScheduleTrip –Stops

Description

This gives information links to the schedule trip.

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory/ Optional	Notes
Code	This describes the unique alphanumeric code which links trip to a schedule	varchar	10	Mandatory	For example: 00299

Status	This describes the delay status of the Trip	char	1	Optional	For example: S = Stop M = Moving
Remark	This indicate trip remark	varchar	50	Optional	Current value = null

2.5.6.2 ScheduleTrip –ArrivalTime

Description

This describe information about arrival time related to schedule trip

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory/ Optional	Notes
Scheduled	This indicate scheduled arrival time for the trip	datetime		Optional	
Computed	This indicate computed arrival time	datetime		Optional	
Status	This describes the delay satus of the Trip.	char	1	Optional	For example: S = Stop M= Moving

2.5.6.3 ScheduleTrip –DepartureTime

Description

This describe information about departure time related to schedule trip

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory/ Optional	Notes
Scheduled	This indicate scheduled departure time for the trip	datetime		Optional	
Computed	This indicate computed departure time	datetime		Optional	
Status	This describes the delay status of the Trip.	char	1	Optional	For example: S = Stop M= Moving

2.5.6.4 ScheduleTrip –Track

Description

This display platform / track information for the trip

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory/ Optional	Notes
Schedule	This indicate the scheduled	varchar	5	Optional	

	platform for the trip				
Actual	This indicate the actual platform for the trip	varchar	5	Optional	

2.6 Fares Service

Description

This function display information about all fares between two stations.

2.6.1 FareCategory

Description

This indicates Fare Category types associated with departure and destination stations

Parameter List: fromStationCode – a departure station code

- toStationCode – a destination station code
- Operational Day – If Operational Day parameter is not provided, current operational day apply, else, Operational Day (Effective Day) parameter will be apply.

Returns Value: Fare types and fare costs for the departure and destination of the required or provided stations

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Type	This indicates the type of Fare.	varchar	10	Mandatory	Fare types are as follows: <ul style="list-style-type: none"> • Adult • Student • Senior • Child



					<ul style="list-style-type: none"> • Group Pass
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2.6.1.1 FareCategory –Ticket

Description

This indicates the ticket types for travel needs. This ticket types is associated with FareCategory.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Type	Type of tickets	varchar	10	Mandatory	Ticket types are: <ul style="list-style-type: none"> • Paper • Presto

2.6.1.2 FareCategory –Fare

Description

This is fares associated with each ticket type

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes												
Type	This indicates the Fare Type that is available for the Fare Category and Ticket Type	varchar	50	Mandatory	For example: Adult Ticket Type: <table border="1" data-bbox="1122 1293 1539 1740"> <thead> <tr> <th>Fare Category</th> <th>Ticket Type</th> <th>Fare Type</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Adult</td> <td rowspan="2">Paper</td> <td>Single Ride Adult</td> </tr> <tr> <td>Day Pass Adult</td> </tr> <tr> <td rowspan="3">Presto</td> <td rowspan="3">Presto</td> <td>PrestoTrips 1-35</td> </tr> <tr> <td>PrestoTrips 36-40</td> </tr> <tr> <td>PrestoTrips 41+</td> </tr> </tbody> </table>	Fare Category	Ticket Type	Fare Type	Adult	Paper	Single Ride Adult	Day Pass Adult	Presto	Presto	PrestoTrips 1-35	PrestoTrips 36-40	PrestoTrips 41+
Fare Category	Ticket Type	Fare Type															
Adult	Paper	Single Ride Adult															
		Day Pass Adult															
Presto	Presto	PrestoTrips 1-35															
		PrestoTrips 36-40															
		PrestoTrips 41+															

Amount	This is the amount paid	numeric		Mandatory	
Category	This indicates fare category	varchar	50	Mandatory	For example: ●Normal ●Discount

2.7 GTFS Feeds

Description

General Transit Feed Specification (GTFS) provides realtime information about the position of the bus or train, also provide an update on the progress as its travels along a scheduled trip. This is designed for ease of implementation and focus on passenger information.

This contains the following functions:

- VehiclePosition
- TripUpdates
- GTFS Alerts

2.7.1 The Header

Description

A GTFS realtime message has a mandatory header - the Header. The Header object has the following fields.

Metadata: This metadata about a feed common to all and included in feed messages.

Attribute Name	Description	Data Type	Maximum Length	Required Field? Mandatory / Optional	Notes
Gtfs_realtime_version	This indicates version of the feed specification	varchar	50	Mandatory	Currently "2.0"
Incrementality	This is to determine whether dataset is incremental or	varchar	50	Mandatory	The possible values are: Full_DataSet: this feed update will overwrite all

	full				preceding realtime information for the feed •Differential: currently, this mode is not supported and behavior is unspecified fro feeds that use this mode.
Timestamp	This identifies the time where this dataset was generated on server for determining the sequence of alert feeds (in server time). This field is Mandatory and is used to measure integration performance.	datetime		Mandatory	This timestamp is derive from a time server. For example : 1524748159

2.7.2 GTFS Entity

Description

This a definition of an entity in the transit feed. If the entity is not deleted, exactly one of “trip_update. ‘vehicle’ and “alert” fields should be populated. GTFS Realtime supports three distinct types of real time data (Trip_Update, Vehicle_Position and Alerts fields.), and can be combine within a single realtime feed. If the entity is not deleted, exactly one of “trip_update. ‘vehicle’ and “alert” fields should be populated.

GTFS Entity has the following attributes:

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
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id	A unique identifier for this entity	varchar	10	Mandatory	For example: 20180706-12-12241
is_deleted	This indicate the will to delete a previous entity using the same id. This only works for Alerts entities	bit		Optional	For example: False
trip_update,	This is indicates data about realtime departure delays of a trip.	trip_update		Mandatory - conditional	One of the fields trip_update, vehicle, or alert must be provided – all these fields cannot be empty. For example, if trip_update is provided, therefore, vehicle and alert shall be empty.
vehicle	This is data about realtime position of a vehicle	VehiclePosition		Mandatory - conditional	One of the fields trip_update, vehicle, or alert must be provided – all these fields cannot be empty. For example, if vehicle is provided, trip_update and alert shall be empty
alert	This indicate data about the realtime alert.	Alert		Mandatory - conditional	One of the fields trip_update, vehicle, or alert must be provided – all

					these fields cannot be empty. For example, if alert is provided, therefore, vehicle and trip_update shall be empty.
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2.7.3 GTFS VehiclePosition

Description

This is used to provide information on the location of a running vehicles on a map displayed, such as from a GPS device on board, website or on mobile apps. Also contains information about vehicle individual alert.

Parameter List: N/A

Return Value: Generated information on the vehicle’s location

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Stop_id	This is a unique identifier that identifies a stop	char	10	Optional	
Current_Status	This indicates the exact status of the bus or train with respect to the current stop	varchar	10	Optional	
Timestamp	This indicates the moment at which the bus or train’s position was measured	datetime		Mandatory	Date and Time display format result: (yyyy-mm-dd: hh-mm-ss)

Congestion_Level	This specify the congestion level that the vehicle is currently experiencing	varchar	500	Optional	Possible value: •Unknown Congestion
Occupance_Status	This specify the level of passenger occupancy for the vehicle	varchar	10	Optional	Possible value: • Empty

2.7.3.1 GTFS Vehicle - Trip

Description

This gives information about the progress of a vehicle along a trip.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
trip_id	This indicates an identification of a trip the vehicle is serving	varchar	10	Mandatory	For example: 20180405-12-12311
route_id	This is the route_id from the GTFS	char	5	Mandatory	If trip_id is omitted, route_id must be provided. For example: 12170418-12
direction_id	This is the direction_id indicating the direction of travel for the trip from the GTFS feed trips.txt file.	char	1	Mandaory	For example: 1
start_tme	This indicates the initial scheduled	datetime		Mandatory	Time format must be the same as that of

	start time of the trip				GTFS, e.g “10:39:00”
start_date	This is the start date of the trip	datetime		Mandatory	Date format: YYYYMMDD - 20180405
schedule_relationship	This is the relationship between the Stop Time and the Schedule	varchar	10	Optional	By default, the schedule relationship is set to: SCHEDULED

2.7.3.2 GTFS Vehicle - *Vehicle*

Description

This provide information about the vehicle

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
id	This gives unique identification (internal system identification) of the vehicle and is used for tracking the vehicle as it proceeds through the system	char	5	Mandatory	This should not be made visible, instead use the label field. For example: 8373
Label	This gives a visible identification of the vehicle	varchar	128	Optional	For example: 12 – Niagara Falls
License_Plate	This indicates the license plate of the vehicle	varchar	10	Optional	Optional

2.7.3.3 GTFS Vehicle - *Position*

Description

This provide information about the geographical position of the vehicle.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Latitude	This is the current latitude coordinate of the vehicle with the Longitude which gives the vehicle's location.	numeric		Mandatory	For example: 43.6218
Longitude	This is the current longitude coordinate of the vehicle with the Latitude which gives the vehicle's location.	numeric		Mandatory	
Bearing	This describes the bearing in degrees clockwise from North. This can be direction towards the next stop or intermediate location.	char	1	Mandatory	
Odometer	This gives the odometer value	numeric		Optional	
Speed	This indicates the speed measured by the bus or train	Numeric		Mandatory	Measured in meter per second

2.7.4 GTFS TripUpdate

Description

This gives the ability to receive trip updated for all trips that has been scheduled that are real time – capable. It also give a predicted arrival or departure time for stops along the route.

Parameter List: N/A

Return Value: Vehicle and trip information, realtime update of arrival and departure events

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
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timestamp	This indicate the moment the at which the train's position was measured	datetime		Mandatory	Date and time display format: yyyy-mm-dd;hh-mm-ss
delay	This indicates the vehicle is late or delay (in seconds)	int		Optional	For example: 9 <ul style="list-style-type: none"> Delay of 0 means that the vehicle is exactly on time. Negative delay means vehicle is 2 seconds ahead of schedule

2.7.4.1 GTFS TripUpdate - Trip

Description

This provide information about progress of a vehicle along a trip

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
trip_id	This indicates an idenfication of a trip the vehicle is serving	varchar	10	Mandatory	For example: 20180405-12-12311
route_id	This is the route_id from the GTFS	char	5	Mandatory	If trip_id is omitted, route_id must be provided. For example: 12170418-12
direction_id	This is the direction_id indicating the direction of travel for the trip from the GTFS feed trips.txt file.	char	1	Mandaory	For example: 1
start_tme	This indicates the initial scheduled	datetime		Mandatory	Time format must be the same as that of

	start time of the trip				GTFS, e.g “10:39:00”
start_date	This is the start date of the trip	datetime		Mandatory	Date format: YYYYMMDD - 20180405
schedule_relationship	This is the relationship between the Stop Time and the Schedule	varchar	10	Optional	By default, the schedule relationship is set to: SCHEDULED

2.7.4.2 GTFS TripUpdate – *Vehicle*

Description

This provide information about the vehicle

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
id	This gives unique identification (internal system identification) of the vehicle and is used for tracking the vehicle as it proceeds through the system	char	10	Optional	This should not be made visible, instead use the label field. For example: 8373
label	This gives a visible identification of the vehicle	char	10	Optional	
License_plate	This indicates the license plate of the vehicle.	char	10	Optional	

2.7.4.3 GTFS TripUpdate – *Stop_Time_Update*

Description

This indicates a realtime update for arrival events for a given stop on a trip. The update is linked to a specific stop either through stop_sequence or stop_id.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
Stop_id	This is a unique identifier used to identifies the current stop	Char	10	Mandatory	This must be the same as in stop.txt in the corresponding GTFS feed. For example: 02408
Arrival	This indicates timing information for a single predicted arrival event	datetime2		Mandatory	If schedule_relationship is empty or SCHEDULED, either arrival or departure must be provided within a StopTimeUpdate - both fields cannot be empty. arrival and departure may both be empty when schedule_relationship is SKIPPED. If schedule_relationship is NO_DATA, arrival and departure must be empty.
Schedule_relationship	This indicates the relation between this trip and the static schedule	varchar	10	Mandatory	Possible values are as follows: <ul style="list-style-type: none"> • Scheduled • Added • Unscaheduled • Cancelled

2.7.4.3.1 GTFS TripUpdate – *Stop_Time_Update (Departure)*

Description

This indicates timing information for a single predicted departure event

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
delay	This indicates that the vehicle is late or delay (in seconds)	int		Optional	For example: 9 <ul style="list-style-type: none"> • Delay of 0 means that the vehicle is exactly on time. • Negative delay means vehicle is 2 seconds ahead of schedule
Time	This indicates the event as absolute time the vehicle is delayed – number of seconds	datetime		Optional	Either delay or time must be provided within a StopTimeEvent - both fields cannot be empty.
uncertainty	This specify a completely certain prediction.			Mandatory	Set its uncertainty = 0

2.7.5 GTFS Alerts

Description

This provides updates whenever there is disruption on a trip service. Delays and cancellations of individual trips should usually be communicated using Trip updates.

Parameter List: N/A

Return Value: trip service information

2.7.5.1 GTFS Alerts – Entity

Description

This is a definition of an entity in the transit feed. If the entity is not deleted, exactly one of “trip_update. ‘vehicle’ and “alert” fields should be populated

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
id	A unique identifier for this entity	int		Mandatory	
is_deleted	This is a flag indicating if the entity is deleted (true) or not (false)	bit		Mandatory	
trip_update	This indicates data about about realtime departure delays of a trip				At least one of the fields trip_update, vehicle, or alert must be provided - all these fields cannot be empty. If trip_update is provide, vehicle and alert shall be empty or null.
vehicle	This indicates additional information on the vehicle that is serving this trip.				At least one of the fields trip_update, vehicle, or alert must be provided - all these fields cannot be empty. If vehicle is provide, trip-update and alert shall be empty or null
alert	Data about the realtime alert - a full description of the alert.	varchar	10	Mandatory	At least one of the fields trip_update, vehicle, or alert must be provided -

					all these fields cannot be empty. If alert is provided, trip_update and vehicle shall be empty or null
cause	This indicate the cause of the alert	varchar	255	Optional	Current possible value: Unknown cause
effect	This indicates the effect of the alert	varchar	255	Optional	Current possible value: Unknown effect

2.7.5.2 GTFS Alerts – *ActivePeriod*

Description

This provides the time when the alert should be shown to the user. The interval is considered active at time (t -time) if (t -time) is greater than or equal to the start time and less than the end time.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
start	This indicates the start time	datetime		Mandatory	From example: 1516739460
end	This indicates the end time	datetime		Mandatory	From example: 1516739520

2.7.5.3 GTFS Alerts – *InformedEntity*

Description

This allows ones to specify which part of the network this alert affects, to help display only the most appropriate alerts to the user.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory /	Notes
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				Optional)	
agency_id	This is GTFS identifier which by selecting this simply means it affects the whole network			Mandatory	This is selected using this identifier for alerts which affect this entity
route_id	This is GTFS identifier which by selecting this simply means it affects the whole route	char	2	Mandatory	This is selected using this identifier for alerts which affect this entity
route_type	This indicates alerts which affects any route of this type	char	1	Mandatory	For example: 0
trip	This indicates the trip the vehicles is servicing	varchar	10	Optional	Current value – “null”
Stop_id	This identifies the current stop	char	10	Mandatory	For example: KE

2.7.5.4 GTFS Alerts – *Url/Translation*

Description

This provide the given url which provide additional information about the alert and indicates multiple languages / translation supported.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
text	This string contains the entire message	varchar	1000	Optional	For example: “http://www.gotransit.com/publicroot/en/updates/servicesstatus.aspx”

language	This indicates the message in English / french	varchar	1000	Optional	For example: "en" & "fr"
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2.7.5.5 GTFS Alerts – *HeaderText/Translation*

Description

This indicate header for the summary of the alert. This is plain – text string will be highlighted.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
text	This string contains the entire message	varchar	1000	Optional	For example: "York university labour disruption"
language	This indicates the message in English/French	varchar	1000	Optional	For example: "en" & "fr"

2.7.5.6 GTFS Alerts – *DescriptionText/Translation*

Description

This indicates header for the summary of the alert. This is plain – text string will be highlighted.

Attribute Name	Description	Data Type	Maximum Length	Required Field? (Mandatory / Optional)	Notes
text	This string contains the entire message	varchar	1000	Optional	For example: Effective until further notice Route 52 and 54 GO Buses are being rerouted as a result of the labour disruption at York University.
language	This indicates the message in English/French	varchar	1000	Optional	For example: "en" & "fr"