

AT&T SMS Logic Flow, In Conjunction With Google's General Transit Feed Specifications (GTFS) Files

v 20120229 note: the examples given match the 20110131 sign-up and the associated GTFS files

Incoming SMS

Field	Details
stop_code	Required, four characters alphanumeric characters that uniquely identifies the bus stop.
<space(s)>	One or more spaces required to delimit the stop_code from the route_short_name
route_short_name	Required, one to four alphanumeric characters that uniquely identifies the route.

Example:

7006 155

f- 1GetStopInfo 1:1

Field	Example Value
stop_id	704230169
stop_name	Coors @ Fortuna

f- 2GetRouteInfo 1:1

Field	Example Value
route_id	1691
route_long_name	Coors

f- 3GetServiceInfo 1:00

Field	Example Value
service_id	1_merged_704230401

f- 4GetNextDepartureInfo 00:00

Field	Example Value
route_short_name	155
route_long_name	Coors
stop_name	Coors @ Fortuna
depart1	1:27pm
depart2	1:57pm

System Derived Current Date & Time

Field	Details
sys_date	Required. Date fields from GTFS are stored in yyyyymmdd format
sys_time	Required. Time fields from GTFS are stored in 24 hour hh:mm:ss format

Example:

20120229 13:00:00

Outgoing SMS (max 160 characters)

Route route_short_name , stop_code : Next departures at about depart1 and depart2	Route 155, Stop 7006: Next departures at about 1:27 and 1:57
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Input Field
stop_code

Example:

7006 <u>155</u>

f- 1GetStopInfo	1:1
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Description	<p>Using the table stops and the field stop_code, find a one-to-one match and return the values from fields stop_id and stop_name. The field stop_id will be used in subsequent data lookup while stop_name information will ultimately be returned to the user.</p> <p>If no matches were found then the reply SMS should be "Bus stop stop_code not found, please check and try again or to report this issue and for assistance, please call 3-1-1".</p> <p>If more than one match was found then the reply SMS should be "Duplicate bus stop stop_code, please call 3-1-1 to report this issue and for assistance".</p>
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Field	Example Value
stop_id	704230169
stop_name	Coors @ Fortuna

Input Field
route_short_name

Example:

7006 <u>155</u>

f- 2GetRouteInfo	1:1
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Description	<p>Using the table routes and the field route_short_name, find a one-to-one match and return the values from fields route_id and route_long_name. The field route_id will be used in subsequent data lookup while route_long_name information will ultimately be returned to the user.</p> <p>If no matches were found then the reply SMS should be "Route route_short_name not found, please check and try again or to report this issue and for assistance, please call 3-1-1".</p> <p>If more than one match was found then the reply SMS should be "Duplicate route route_short_name, please call 3-1-1 to report this issue and for assistance".</p>
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Field	Example Value
route_id	1691
route_long_name	Coors

Input Field
sys_date

Example:

20120229 13:00:00

f- 3GetServiceInfo	1:00
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Description Part 1	<p>Using the table calendar and the fields start_date and end_date, find the one-to-many relationship records where today's date sys_date is >= start_date and <= end_date.</p> <p>Narrow the search by excluding any records where the binary fields monday, tuesday, wednesday, thursday, friday, saturday or sunday do not match with the current day of the week. For example, February 29th 2012 is a Wednesday. Exclude all records where the field wednesday is not equal to 1.</p> <p>If no matches were found then the reply SMS should be "System unavailable, please try later".</p> <p>If more than one match was found then store all service_id values for future data lookup.</p>
Description Part 2	<p>Using the table calendar_dates and the field date, find the one-to-many relationship records where today's date sys_date is = date.</p> <p>If record(s) were found, process by using the exception_type field as follows:</p> <p>A value of 1 indicates that this is additional service on top of regular service. Add this or these service_id values to the values found in Part 1 above.</p> <p>A value of 2 indicates that this service_id is negated from today's service. Remove this or these service_id values from the values found in Part 1 above.</p> <p>Do nothing if no matches were found.</p>

Field	Example Value
service_id	1_merged_704230401

Input Field	Example:
stop_id	704230169
route_id	1691
service_id	1_merged_704230401
sys_time	13:00:00



<i>f</i> - 4GetNextDepartureInfo	00:00
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Description	<p>Field service_id is from <i>f</i>- 3GetServiceInfo(service_id)</p> <p>Using the table trips, match for all records with service_id(s) found in <i>f</i>- 3GetServiceInfo(service_id) and store all data from the field trip_id</p> <p>Using the table stop_times, match for all records with trip_id(s) found from the previous step.</p> <p>Field stop_id is from <i>f</i>- 1GetStopInfo(stop_id) Field route_id is from <i>f</i>- 2GetRouteInfo(route_id) Field departure_time > sys_time</p> <p>Narrow the search to two records that are chronologically next on the schedule from any service_id, trip_id and table stop_times from previous steps. Both records may derive from one service_id or they may derive from multiple service_id(s).</p> <p>Normal reply SMS should be "Route route_short_name, stop_code: Next departures at about depart1 and depart2".</p>
Requirements and Notes:	<ol style="list-style-type: none"> 1) Developer needs to check for updated GTFS files on daily basis. The best time to upload and process new GTFS files is at 3:00am Mountain Time Zone. 2) GTFS format allows for times after midnight to be stored as 24:00 or 25:30 (midnight and 1:30am respectively). Most databases do not allow time data to be stored in this format. 3) departure_time field in the table stop_times stores departure_time after midnight but for the previous day's service_id or group of service_ids. 4) When performing the above lookup or query, if sys_time is < 3:00:00 and >= 00:00:00 then sys_date must be modified to use yesterday's date and 24:00:00 must be added to sys_time to return the correct data set. 5) GTFS time formats include hours, minutes and seconds. When sending SMS to the user, seconds are to be truncated from the reply, not rounded. 6) stop_code and route_short_name from the incoming SMS are not limited to four characters. For example, if the user enters a 10 digit stop_code or a 10 digit route_short_name then process as normal. The reply SMS will be "Bus stop stop_code not found, please check and try again or to report this issue and for assistance, please call 3-1-1" 7) Any information from an incoming SMS that is in addition to the stop_code and route_short_name is to be ignored.

Field	Example Value
route_short_name	155
route_long_name	Coors
stop_name	Coors @ Fortuna
depart1	1:27pm
depart2	1:57pm