RFMS DESCRIPTION

rFMS is a HTTP and REST based API for retrieval of vehicle data from a specific customers fleet of trucks/buses. In version 1.0 of rFMS the only HTTP method supported are GET and the authentication method is basic. The API offers three different main services:

- Vehicle list – responds with a list of vehicles that the customer have that data can be retrieved for.
- Vehicle position – responds with the latest or a trail of positions for a specific vehicle or the customers total fleet of vehicles.
- Vehicle status – responds with the latest or a series of historical vehicle status records for a specific vehicle or the customers total fleet of vehicles.

The vehicle list service response contains the following information for each vehicle

Response field	Description
Vehicle identification number (VIN)	The unique identifier of a vehicle. This is a 17 character long string. This is always present.
Customer vehicle name	The name that the customer has given the vehicle in the manufacturer fleet management system. This is a string of variable length. This is present if there is a name given to the vehicle.
License plate	The license plate number of the vehicle. Only available if the customer has entered it in the manufacturer fleet management system.
Services supported	This field is itself a list of all services a specific vehicle supports. The list includes information about: • Name of the service • Version of the service • URL to access the service • Source type of the service, i.e. is it a standard service or a manufacturer specific.
Server date/time at request	The time in UTC at the server side when the vehicle list GET request was received.

In general, all vehicles supporting the rFMS API today also supports all in this document described services.

The vehicle position service response contains the below listed information. Either the latest from the vehicle received position or a trail of positions can be returned. If a trail is desired a start and stop date for the trail must be given in the request. The request by default give the positions of all vehicles in the customers fleet. If a specific vehicle identification is supplied with the request, only that vehicle's positions are returned.

Response field	Description
Trigger type	The trigger in the vehicle that caused the position to be sampled and sent to the server. Currently only supported trigger is time based.
Server date/time at request.	The time at the server when the position GET request was received.
Server date/time at reception of message	The time at the server when the position message was received by the server from the vehicle.
Position	The position of the vehicle at the time for creation of the position message, described by latitude and longitude.
Vehicle identification number (VIN)	The vehicle's unique identification number, 17 characters long.
Optional position attributes	Optional position attributes. In this case the GPS speed in km/h, altitude in meters and heading in degrees are supported.
Date/time for creation of message	The date and time in the vehicle when the position message was created.
Vehicle speed	This would be the wheel based speed of the vehicle. However, this parameter is currently not supported. Instead refer to the GPS speed.

The vehicle status response contains the below listed information. Either the latest from the vehicle received status or a series of vehicle status records can be returned. If a series of records is desired a start and stop date for the series must be given in the request. The request by default give the status of all vehicles in the customers fleet. If a specific vehicle identification is supplied with the request, only that vehicle's status records are returned.

Response field	Description
Trigger type	The trigger in the vehicle that caused the status to be sampled and sent to the server. Currently only supported trigger is time based.
Server date/time at request.	The time at the servier when the status GET request was received.
Server date/time at reception of message	The time at the server when the status message was received by the server from the vehicle.
Position	The position of the vehicle at the time for creation of the status message, described by latitude and longitude.
Optional position attributes	Optional position attributes. In this case the GPS speed in km/h, altitude in meters and heading in degrees are supported.
Date/time for creation of message	The date and time in the vehicle when the status message was created.
Gross combination vehicle weight	The weight of the truck and trailer in kg. Note, this is only supplied for vehicles that have the value measured in the vehicle. This requires a specific configuration of the vehicle and not all responses will include it.
Total fuel used	The total amount of fuel in litres that the vehicle has consumed since day one of the vehicle's operation. Never reset, unless the vehicle is restored to default.
Fuel level	The current fuel level in percent of total fuel tank volume.
Adblue level	The current adblue level in percent of total adblue tank volume. Note, this field is only present in vehicles

	that use SCR technology.
Vehicle identification number (VIN)	The vehicle's unique identification number, 17 characters long.
Vehicle driven distance	The distance the vehicle has driven in km since day one of the vehicle's operation. Never reset, unless the vehicle is restored to default.
Vehicle speed	This would be the wheel based speed of the vehicle. However, this parameter is currently not supported. Instead refer to the GPS speed.
Driver 1 driver card number	The tachograph driver card number of the logged in driver. Only presented to the vehicle owner.
Driver 1 manufacturer spec. identification	If the manufacturer supports a proprietary driver identification method, this field is used (not supported by Scania). Only presented to the vehicle owner.
Driver 1 working state	The tachograph registered working state of the logged in driver 1. Could be one of resting, driving, doing other work or is available. Only presented to the vehicle owner.

Version 2.0 of rFMS will, when released, include a number of new vehicle status parameters and triggers. The description of these are out of scope for this short description. But an indication of potentially available data can be found in the FMS version 3.0 specification, see http://www.fms-standard.com.

The time trigger for Scania can be 1 or 10 minutes for the position service and 1, 10 or 240 minutes for the status service. This differs based on what service level the customer has bought for the individual vehicles in his/her fleet.

A detailed rFMS API description can be found here :
https://fmsoptextapi.scania.com/RFMS/Help
(note that the requestId parameter found in the API documentation referred to above does not need to be used, it is optional and only used if a specific request must be traced at the server side).