



Date: 29th August 2012

Response to the Queries

Industry Interaction Meeting for New Paratransit

Subject: The following responses are with respect to document entitled Registration of Electronic fare meter for the new Para-transit published on DIMTS website.

Date of Meeting: 27th August 2012

Place: DIMTS Limited, 1st Floor Maharana Pratap ISBT Building, Kashmere Gate, Delhi – 110 006

Time of Meeting : 11:30 AM IST

SECTION A:

S. No.	Content	Query	Response
1.		There should be supply limit for the provisional certificate holders so the beneficiaries are always covered under their security deposit.	Applicant of Provisionally registered devices on their own or through their dealers can altogether sell maximum of 600 provisionally registered devices.
2.	Page 11, Annexure B, Minimum Technical Specifications Si 1, Internal/External GPS (Frequency L1 1560 - 1590 MHz) and GPRS antenna: quad band; Class 10, Device class B, TCP/IP Frequency band: L1 850/1900MHz and 900/1800MHz.	It is suggested that Quad band should be replaced with dual band. As in India our devices are mostly on dual band.	Dual band is ok.
3.	Page 11, Annexure B, Minimum Technical Specifications The Electronic fare meter with Integrated GPS / GPRS Specifications shall be a single	Do we need submit any certificated issued by DOT/WPC?	WPC or any other NABL accredited laboratory as mentioned in the document.



S. No.	Content	Query	Response
	integrated unit having fare meter and other necessary peripherals along with GSM/CDMA (as per specifications laid down by wireless planning commission) module and GPS Tracking Device.		
4.	Page no. 11, Annexure B, Minimum Technical Specifications, Sl.6, IP54 or higher protection classification	Since meter has a printer, how is IP 54 possible for the integrated device?	There are devices with IP54 printer. Specification remains unchanged.
5.	Page no. 11, Annexure B, Minimum Technical Specifications SL.1, Internal/External GPS (Frequency L1 1560 - 1590 MHz) and GPRS antenna: quad band; Class 10, Device class B, TCP/IP Frequency band: L1 850/1900MHz and 900/1800MHz.	It was suggested that the antenna should be external.	To be read as "Internal GPS (Frequency L1 1560 -1590 MHz) and GPRS antenna: dual band;"
6.		Should the data packet order after outage be LIFO or FIFO?	After the outage, the device must transmit the current location/event packets as the first priority. The packets stored during outage duration should be sent in LIFO order – in between.
7.	Page 11, Annexure B, Minimum Technical Specifications SL.3, GPS Positional Accuracy: at least 5m CEP	Can 5m CEP be relaxed to 10 m CEP?	Specification remains unchanged.
8.	Page 11, Annexure B, Minimum Technical Specifications SL.4, Internal battery (with minimum 4 hours backup)	Is the internal battery expected to support the entire meter – or only the GPS part? In case it is required to support the entire meter, the battery size will become too huge. Also it would need higher voltage for running a thermal printer.	Internal battery is for GPS/GPRS module, only.



S. No.	Content	Query	Response
9.	Page 11 to page 15, Annexure B, Minimum Technical Specifications SL 1 to 20 For many requirements, as mentioned in the document, the validation process is "Certification from an authorised laboratory:.	We request you to kindly suggest us few names/ location of these approved laboratories. Since after we had approached couple of accredited laboratories in and around Delhi, it has been conveyed to us that the facility for testing these units is not available. Please suggest the code/ accreditation required.	The discretion for Lab selection is exclusively on participants. The lab should be an authorised lab as mentioned in the document.
10.	Page 12, Annexure B, Minimum Technical Specifications SL. 8	Why do you require 15000 Lat/long storage capacity?	Specification remains unchanged.
11.	Page 12, Annexure B, Minimum Technical Specifications SL. 10. Facility to configure parameters over the air (should be supported over SMS). These parameters include APN, Server IP, Fully Qualified Domain Name and port, Data Update frequency for all the states mentioned in point 14 of this table	We have been in tracking business for many years. GPS tracker gives you a facility to configure Server, Port number. Why do you required Domain name. Kindly clarify, is it a requirement??? And why ???	GPS system should support configuration of both IP/Port as well as FQDN. System would reserve the detailed settings and may choose to configure either: 1. IP & Port 2. Domain name. However, the device should support configuring in both the ways.
12.	Page 13, Annexure B, Minimum Technical Specifications SL.14, Capability to integrate Voice communication	We would like to understand, when and how this functionality will be used, since it would decide how the units are to be installed and placed in the vehicle. As During any kind of voice communication, the GPS device shall stop any data sending over GPS/SMS and switch to voice module. This may lead to interruption of data flow during voice calls. Auto (TSR) being an open vehicle there shall be mostly be surrounding noise for these equipment to be used effectively and for the purpose. We recommend this capability should be made optional and good to have feature.	Specification remains unchanged.



S. No.	Content	Query	Response
13.	<p>Page 13, Annexure B, Minimum Technical Specifications SL.14,</p> <p>Capability to integrate two way voice communications (feature of GSM module)</p>	Who will take responsibility of SIM Card billing?	Permit Holder.
14.		We would like to propose the inclusion of accurate distance measurement to be provided by GPS tracking unit as one of the mandatory requirements in the context.	It is optional.
15.	<p>Page 14, Annexure B, Minimum Technical Specifications SL. 15,</p> <p>Status Query button</p>	<p>In point 11, of the same document, we have a mandatory provision “Provision to indicate visually, the power/ GPS/GPRS and device status”. With this already been indicated. Is there a need of this status query button?</p> <p>Issue: Status of the working condition of GPS, device, is all the time available on the meter screen, Adding another button will not add on any function, since the status is constantly available.</p>	Specification remains unchanged.
16.	<p>Page 14, Annexure B, Minimum Technical Specifications SL. 16</p> <p>Display: Minimum 4 x 20 backlit LCD, to display Fare and other information.</p> <p>To show the operational status of GPS, GPRS, Printer and Meter</p>	<p>1. For the purpose as mentioned above, the requirement of showing the status of GPS/ GPRS/ Printer/ Meter is achieved by having LED indicators. Do we still require LCD screen meters?</p> <p>Issues</p> <p>1. LCD screens are difficult to manage and are vulnerable to damage.</p> <p>2. LCD screens are expensive component when compared. We recommend that this requirement should be made optional. So as to enable the existing meters to adapt the GPS tracking mechanism without the need to replace the meters entirely</p>	The LEDs can be treated optional.



S. No.	Content	Query	Response
		<p>and for the purpose to keep the solution manageable and with minimum impact.</p>	
17.	<p>Page 14, Annexure B, Minimum Technical Specifications SL. 17: Alert on Opening of the assembly of the Integrated GPS Fare Meter or tampering with the SIM card tray</p>	<p>1. Type of alert needed on opening the assembly of integrated GPS fare meter or tampering with SIM and tray.</p> <p>2. The indicators on the meter screen will show status of GPRS/ GPS modules, any tampering with SIM card shall reflect in these.</p> <p>3. Online alert not available if SIM card tray is tempered/ removed</p> <p>Issue:</p> <p>The indicators are present on the meter to show the status, the online alert can be send on opening the assembly of integrated GPS Fare meter. For SIM card tampering the alert cannot be send online since any connectivity to the server as provided by using GPRS enabled SIM card is lost.</p> <p>We recommend that since there are indicators to show the status of operational condition of GPS/GPRS units another alert on SIM card tampering is not needed, as it is equivalent to GPS / GPRS not operational.</p>	Specification remains unchanged.
18.	<p>Page 15, Annexure B, Minimum Technical Specifications SL. 20: TRIP ID</p>	<p>The tuple of Vehicle ID, Trip start Time, Trip End Time is always unique. What could be the purpose and need of having a unique Trip ID.</p> <p>Issue:</p>	Trip ID made optional.



S. No.	Content	Query	Response
		<p>The tuple as mentioned above is always unique, there should not be any necessary to generate another unique identifier to identify the tuple on the print receipt. This information is redundant.</p> <p>We recommend that since each trip has a tuple that is always unique, and additional trip id identifier is not required to be generated at hardware level. This will enable to integrate the system with many available printers and not limited to few that can incorporate new fields.</p>	
19.	<p>Page 15, Section II:</p> <p>The vehicle mounted Electronic fare meter with Integrated GPS / GPRS, shall conform to the minimum protocols</p>	<p>It was suggested that there should be one protocol format.</p>	<p>Specification remains unchanged.</p>
20.	<p>Page 16, Annexure B, (a) GPS Status Message, and Point 12: Unique Trip Identification Number for each trip. Should be not null/non zero whenever the vehicle is 'busy' status.</p>	<p>The Protocol provides the information / alert message to be sent to server on start of trip, end of trip. There can be only one trip between these two events, on any given vehicle identified by vehicle ID/ IMEI of the device. This suffice the requirement of having a unique TRIP ID in the protocol.</p> <p>Issue: The uniqueness of the trip is already indicated by start/ end of trip alert/ report message. The additional TRIP is redundant information and should if needed be generated at software level.</p> <p>We recommend that since each trip has a tuple that is always unique, and additional trip id identifier is not required to be generated at hardware level. The TRIP ID where needed can be generated at Software / application at protocol implementation. This should not be the part of</p>	<p>Refer response to query 18.</p>



S. No.	Content	Query	Response
		protocol of communication between GPS module and server. OR made good to have feature.	
21.	Page 26, Security Deposit	Security Deposit of Rs 1 Cr. For each certificate or against any specific	As mentioned in the document for Annexure B: The Security deposit is for the Minimum Technical Specifications.
22.		Will DIMTS prefer to have third party listener, instead of sending data directly to DIMTS server?	No.
23.		How much time registration process will take?	Time taken will depend upon no. of applications, quality of response etc. But endeavour will be to release 1st list within 5 working days based on "first come first serve basis".
24.	Page 8, Timelines	The time given for submission of sample is very short as it is difficult to design proposed meter in such a short time. We request you to increase the time period for submission of sample	Time is not short as the process is an on-going process on the "First Come First Serve" basis.
25.	Page 26, Security Deposit	The BG amount is very high as the manufacturer we will have to spend much more on inventories & has to incur investment, so we request you to reduce the bank guarantee amount.	Not accepted.
26.		Your Specification says the protocol is to be given by each supplier whether it will possible for DIMTS to handle different protocol supplied by different supplier.	Already specified the minimum protocols.
27.	Certification from an authorised laboratory	These are standard Specs and we wont get any third party certification for this and recommend you to remove this	Specification remains unchanged.



S. No.	Content	Query	Response
		validation process or suggest us the laboratory who can do this in India	
28.	Trip Indication (conditional), Unique Trip Identification Number for each trip. Should be not null/non zero whenever the vehicle is 'busy' status	We suggest to remove the parameter Trip ID in all location packets and mention this only at the Trip Start and Trip Stop.	Refer response to query 18.

Section B:

Query No 30: There was a Query to further clarify the Certification requirement with respect to participant's suggestions.

Response and suggestion on Device Certification for each parameter: It was further checked with industry participants on what certification they find feasible to provide for each point

SI	Specifications of Integrated GPS Fare Meter	DIMTS Validation Process	Industry Suggestion	DIMTS response
1.	Internal GPS (Frequency L1 1560 -1590 MHz) and GPRS antenna: quad band; Class 10, Device class B, Frequency band: L1 850/1900MHz and 900/1800MHz.	Certification from an authorised laboratory	Rather it should be dual band certification, Module certification from WPC	Certification from an Authorised Laboratories as mentioned in the document*.
2.	GPS Positional Accuracy: at least 5m CEP	Certification from an authorised laboratory	Component spec form Chip from Manufacturer.	Certification from an Authorised Laboratories as mentioned in the document*.
3.	Internal battery (with minimum 4 hours backup)	Certification from an authorised laboratory.	Need to elaborate in what mode it should be 4 hours. Datasheet can be provided in support for same.	Certification from an Authorised Laboratories as mentioned in the document*. Supporting GPS/GPRS mode.



SI	Specifications of Integrated GPS Fare Meter	DIMTS Validation Process	Industry Suggestion	DIMTS response
4.	Temperature range : -10°C to +60°C	Certification from an authorised laboratory	Can we give Weights & Measures certificate as this certificate covers the type test for temperature from Zero degree.	Certification from an Authorised Laboratories as mentioned in the document*. The test must show the results of specification as mentioned in the document.
5.	GPS receiver: Minimum 16 channel, TTFF Cold Start: <60 seconds, TTFF Warm Start: <40 seconds Protocols: standard NMEA0183,WGS-84	Certification from an authorised laboratory	Data sheet can be given. But Voice capability will remove IP 54.	Certification from an Authorised Laboratories as mentioned in the document*.
6.	Capability to integrate two way voice communications (feature of GSM module)	Certification from an authorised laboratory	Module datasheet can be provided.	Certification from an Authorised Laboratories as mentioned in the document*.
7.	The minimum specifications for thermal printer are as follows: <ol style="list-style-type: none"> 1. 12 x 24 Font 2. Print width: 2inch (minimum) 3. Print speed: 60 mm/sec 4. Printing – English – alphanumeric characters 5. Resolution 8 dots/mm 	Certification from an authorised laboratory	Product brochure only.	Certification from an Authorised Laboratories as mentioned in the document*.