



# Thiruvananthapuram Development Front

Reg No : T-1599/04

**Sri Jose Thettayil**

Hon. Minister for Transport,  
Government of Kerala

**Sub: Improvement to the JNNURM Volvo services at Trivandrum**

Respected Sir,

The **Trivandrum Development Front (TDF)** is a not-for-profit organization, composed mainly of young professionals, which works for the overall development of Trivandrum. TDF has been working with the Government to foster and facilitate various developmental projects in Trivandrum.

We would like to express our support to KSRTC for introducing Volvo and Semi-low floor bus services to Trivandrum in association with JNNURM and Trivandrum Corporation. We had submitted a list of suggestions to improve the financial and operational performance of the services to you on January 18<sup>th</sup>, 2010.

In continuation of that, we would like to bring to your urgent notice a number of suggestions to improve the JNNURM services as well as the overall public transport service in Trivandrum. We have segregated the suggestions into those for the immediate term (Annexure I), medium term (Annexure II) and long term (Annexure III).

TDF will be happy to work with KSRTC in taking these and other initiatives forward. Our members have over 50 years of cumulative experience in the management consulting, infrastructure, finance, HR and IT domains. We have worked on various development initiatives with Technopark, Dept. of IT, the Trivandrum Corporation, TRIDA on Trivandrum Master Plan, and the Ports Department, among others, and we look forward to associating with KSRTC as well in the days ahead.

We hope that you will take the necessary steps to suitable upgrade and improve the bus services in Trivandrum at the earliest.

Thanking You,

Yours Sincerely,

**Ramkumar Rajan**

President,  
Trivandrum Development Front

**March 2<sup>nd</sup>, 2010**  
**Trivandrum**

## Annexure I – Immediate-term Initiatives

These initiatives can be rolled out in a period of one to six months.

### Issues to be Addressed

1. Low frequency – this discourages users due to the lack of flexibility with respect to their own schedules
2. Several stretches with low ridership such as Technopark – Kaniyapuram and Chackai – Airport are being operated
3. There is relatively low awareness of routes and schedules among the traveling public
4. Despite 80% capital cost being met through JNNURM, this may not have been factored into the ticket rates.

### Suggested Initiatives

1. **Formation of an SPV** to operate all JNNURM buses with stakes held by KSRTC, Government of Kerala and Trivandrum Corporation; a minimum stake of 10% for each entity. The SPV can have an advisory panel consisting of officials, transportation experts, people's representatives and NGOs. Suggested name – **Trivandrum Bus Transport Company**
2. **Route Modification** – The following three routes are recommended:

Route No.	Route	Total Roundtrip Time (Minutes)	No. of buses (Current fleet)	Frequency
1	East Fort – Thampanoor – Palayam – PMG – Pattom – Kesavadasapuram – Ulloor – Sreekaryam – Technopark	120	4	Every 30 minutes
2	East Fort – Thampanoor – Palayam – Pattoor – Kannammoola – Medical College – Ulloor – Sreekaryam – Kulathoor – Technopark *	120	3	Every 40 minutes
3	Pappanamcode – Karamana – Killipalam – East Fort** – Thampanoor – Palayam – Chackai – (Shanghumugham) – (Kochuveli) – Technopark ***	150	3	Every 50 minutes

**Note:** All buses to divert from Overbridge to Thampanoor and loop back to and from East Fort

\* To run via Engineering College

\*\* Killipalam to East Fort via Attakulangara Bypass

\*\* To loop around Shangumugham only from 4 PM to 8 PM when beach is active; to loop around Kochuveli only when train is arriving/departing

Route 1 has been recommended for operation of BRTS services according to studies conducted by KSUDP

3. **Route Rationalisation** – The following route deletions/modifications can be made:
  - a. **Technopark – Kaniyapuram – Technopark** - involves about 7 Km of running and has almost nil occupancy. Buses may enter Technopark from the back gate, pass through the campus, exit through front gate and return back via Kazhakkootam Junction
  - b. **Chackai – Airport** – involves 12 Km of running and has low ridership except in the evening when people travel to and from Shanghumugham beach. Due to low

frequency, lack of luggage carrying capacity and proximity of Airport to city, the Airport service is unlikely to attract passengers.

- c. **East Fort – Kovalam** – involves 24 Km of travel and sees low ridership except in the evening. This stretch may be discontinued unless sufficient revenue potential is seen in ticket data collected so far. This will also save about 60 minutes from each trip.

Through route rationalisation, as much as 15-20% of the total distance run by the buses can be trimmed without significant loss in revenue. Thus, without any other modification, the current revenue figure of Rs 28/Km can be boosted to about Rs 33/Km.

Additionally, a similar 15-20% increase in frequency can be achieved with the same number of buses

Also, services can start at 8 AM instead of 6 AM and end at 9:30 PM.

4. **Interchanges** – Since all three routes run on the East Fort – Palayam stretch, the schedules can be designed so that all three pass each other at designated interchanges such as East Fort, Thampanoor, Palayam, Ulloor etc within 10 minutes of each other in either direction. This will provide greater flexibility to passengers. For example, a passenger getting on at Medical College can get off at East Fort/Thampanoor and board a bus heading to Karamana within 10 minutes or a passenger from Karamana can get off at Palayam and board a bus for Kesavadasapuram in 10 minutes.
5. **Information for Passengers** – A key issue has been the lack of information about routes and schedules among potential passengers. With the current low frequencies (> once every hour for some routes), passengers have little idea when to expect a bus. The following steps will help improve awareness among passengers:
  - a. Arrival times in either direction to be displayed on boards at each Volvo stop
  - b. Volvo stops to be designated with a common sign.
  - c. Leaflets with detailed routes and schedules to be made available inside every bus.
  - d. The above leaflets can be made available at key hubs like Technopark, Secretariat etc
  - e. Route and schedule information to be made available on popular websites and KSRTC website
  - f. Large display boards with route and schedule details of all services to be put up at interchange/terminal points like East Fort, Thampanoor, Palayam and Technopark
  - g. Sponsorship can be sought for items **a**, **c** and **f**.
6. **Fleet Expansion** – The remaining 20 Volkos and 120 Semi-low floor (SLF) buses to be bought at the earliest to further improve frequency and utilization.

Buses can first be added to the 1<sup>st</sup> route (East Fort to Technopark via Pattom) to bring frequency to once every 15-20 minutes and then to the other routes or new routes. At this point, the frequency can be varied (every 15 minutes between 8 AM and 10 AM & 5 PM and 7 PM; every 30 minutes at other times).

#### 7. **Other Initiatives:**

- a. Tie-up with firms in Technopark to popularize the Volvo services instead of two-wheelers – safer, more comfortable and environmentally friendly.
- b. Consider offering discounted rates for regular passengers
- c. Position the Volkos as a “safe, comfortable travel option” for women and children
- d. Engage NATPAC/CET to conduct a traffic study/consider online surveys in association with popular portals
- e. Engage an advertising firm to utilize the advertising potential inside and on the buses; BMTTC has turned a profit based on advertising revenue

## Annexure II – Medium term Initiatives

These initiatives can be rolled out in a period of six to twelve months

### 1. Expansion of existing Volvo routes

Route No.	Route	Total Roundtrip Time (Minutes)	No. of buses (Current fleet)	Frequency
1	East Fort – Thampanoor – Palayam – PMG – Pattom – Kesavadasapuram – Ulloor – Sreekaryam – Technopark	120	8	Every 15 minutes
2	East Fort – Thampanoor – Palayam – Pattor – Kannammoola – Medical College – Ulloor – Sreekaryam – Kulathoor – Technopark *	120	6	Every 20 minutes
3	Pappanamcode – Karamana – Killipalam – East Fort** – Thampanoor – Palayam – Chackai – (Shanghumugham) – (Kochuveli) – Technopark ***	150	8	Every 20 minutes

### 2. New Volvo routes

Route No.	Route	Total Roundtrip Time (Minutes)	No. of buses (Current fleet)	Frequency
4	Peroorkada – Kowdiar – Sasthamangalam – Vellayambalam – Vazhuthacaud – Bakery Jn – Palayam - Thampanoor – East Fort	120	4	Every 30 minutes
5	Poojapura – Edapazhanji – Vazhuthacaud – Vellayambalam – Kowdiar – Kuravankonam – Pattom – Kesavadasapuram	120	4	Every 30 minutes

### 3. SLF routes could include:

- Attingal – Kazhakoottam
- Nedumangad – Kovalam (via Peroorkada – Palayam – East Fort – Thiruvallam)
- Kovalam – Kazhakkootam (via Bypass)
- Neyyatinkara – Balaramapuram – Karamana – East Fort
- Peroorkada – Vazhayila - Nettayam – Sasthamangalam – Palayam
- Kazhakoottam – Kattakada (via Bypass – Palayam – Idapazhanji – Peyad)
- Venjaramoodu – Pappanamcode (via Pattom – M.G. Road – EF – Karamana)
- Venjaramoodu – Peroorkada (via Kazhakkootam – Medical College – Pattom)
- Kattakkada-Peyad-East Fort / Medical College

### 4. Other initiatives

- a. Live bus information systems for Volvo routes at key interchanges and terminals using GPS-GPRS technology; assistance of Technopark firms can be sought
- b. Consider acquiring more buses as per traffic study

### **Annexure III – Long term Initiatives**

These initiatives can be rolled out in a period of twelve to thirty-six months

#### **Issues to be Addressed**

1. Transport planning and management done by a number of agencies – KSRTC, KSUDP, RTOs etc for the Trivandrum Metropolitan region
2. Services are predominantly point-to-point
3. Lack of availability of full-service bus terminals
4. High traffic volumes along key routes

#### **Suggested Initiatives**

1. **Formation of a Metropolitan Transit Authority** – The JNNURM SPV can be developed into an independent Trivandrum Metropolitan Transit Authority (TMTA) which will look at all public transport within the Trivandrum Metro region, encompassing Trivandrum Corporation, its suburbs and the adjoining satellite towns of Nedumangad, Neyyatinkara and Attingal. TMTA will undertake all planning and development of mass transit initiatives in future and also take over all KSRTC buses and terminals in the Trivandrum region. TMTA will also coordinate with other transportation agencies like Railways and National Highway Authority.
2. **Modification of Route Network** - Today, the route network is predominantly point-to-point, necessitating frequent transfers and relatively long wait times. To handle an ever-increasing traffic volume more efficiently, a composite route network composed of the following types of routes may be considered:
  - a. **Core Routes** - are high density routes along arterial transportation axes, which would be serviced with Volvos, SLF buses and ordinary buses, and possibly by a BRTS system, which could later evolve into a monorail line. Eg: East Fort – Technopark, Kovalam – Technopark (Bypass).
  - b. **Supplementary/Radial Routes** - can connect lower density routes within the urban area or connect outlying areas to the urban core. They would be operated with SLF and ordinary buses, with perhaps a few Volvos. Eg: - Venjaramoodu – Kovalam, Nedumangad – East Fort, Kattakada – Thampanoor etc
  - c. **Ring Routes** – run in concentric rings around the core urban area without passing through it. They would be operated with SLF and ordinary buses, with perhaps a few Volvos later on. Eg: Aakulam – Sreekaryam – Manamthala – Peroorkada – Vattiyoorkavu – Pappanamcode – Thiruvallam; Kazhakkootam – Venjaramoodu – Nedumangad – Balaramapuram.
3. **Improvement of Terminals**- The following terminals need to be upgraded as city bus terminals – Nedumangad, Neyyatinkara, Vizhinjam, Vellanad, Kaniyapuram, Attingal and Kattakada. East Fort has to be expanded as a drive-through terminal like Thampanoor. These terminals would have enhanced passenger amenities and minimal maintenance facilities.
4. **New Terminals** – The following new terminals need to be created for city services – Kazhakkootam, Kochuveli, Medical College, Peyad, Vattapara, Venjaramoodu and Pravachambalam. Centralised maintenance of all city buses can be at Pappanamcode and Vikas Bhavan.
5. **Other modes of Transit** – Active studies have to be conducted into the development of BRTS and monorail corridors. A BRTS corridor has already received Cabinet sanction in July 2009, this needs to be taken up urgently with Union Government assistance. The Outer Ring Road project, proposed by NHAI, to be taken up as a priority.