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MEETING NOTICE

No.H-25011/4/2010-P&P
Government of India
Ministry of Road Transport and Highways
*****

1, Parliament Street
New Delhi

Dated the 7th July, 2010

OFFICE MEMORANDUM

Subject: Implementation of Electronic Toll Collection (ETC) System

Shri Sanjay Bandopadhyaya, Joint Secretary (LA&C), Ministry of Road Transport & Highways will be holding **a meeting in his chamber, Room No.520, 5th Floor, Transport Bhawan, New Delhi on 8th July, 2010 at 11.00 a.m. on the above mentioned subject.**

2. The background note is enclosed.

3. Addressees are requested to make it convenient to attend the meeting.

(S. Narendra)
Director (PPP)
Telefax No.23714974

Encl: As above.

To,

1. Member (T), NHAI
2. Chief Engineer (S&R), MoRT&H
3. Director (RT), MoRT&H
4. GM (Elect.) [Shri R.C. Palekar], NHAI

Copy to: PS to JS (LA&C), MoRT&H

o/c

BACKGROUND NOTE ON THE PROPOSED ELECTRONIC TOLL COLLECTION (ETC) SYSTEM

With an objective to have uniform interoperable Electronic Toll Collection (ETC) system for paying tolls seamlessly on National Highways in India, the Ministry of Road Transport & Highways had constituted a Committee to propose suitable technology, architecture, and methods for ETC in India that will satisfy the objectives.

The members of the Committee were:

(i)	Shri. Nandan Nilekani, Chairman, UIDAI	-	Chairman
(ii)	Prof. Pankaj Jalote, Director, IIIT, Delhi	-	Member
(iii)	Dr. Kolin Paul, Asst. Professor, IIT, Delhi	-	Member
(iv)	Shri. A.V. Sinha, DG (RD), MoRTH	-	Member
(v)	Shri. V.L. Patankar, Member(Tech), NHAI	-	Member-Secretary

The Committee was constituted on 20th April, 2010. After various meetings / interactive discussions with stake holders and detailed analysis of different ETC technologies, the Committee has finalized its Report and is submitting it to the Ministry on July 2nd, 2010.

Context

Electronic Toll Collection (ETC) is a technology that allows electronic payment of highway tolls. ETC systems use vehicle-to-roadside communication technologies to perform an electronic monetary transaction between a vehicle passing through a toll plaza and the toll collection agency.

ETC systems can replace a human toll collector who manually collects tolls at tollbooths. Such a system can work across toll plazas run by different operators and allows transactions to be performed while vehicles travel at near highway speed enabling seamless travel by the road users along National Highways

Major advantages of ETC system are:

(i) Increase user convenience from payment without stopping at toll plazas
(ii) Less traffic congestion and reduced commute times
(iii) Less operating cost for toll operators
(iv) Better audit control through centralized user accounts
(v) Savings on fuel and reduction of emissions from idling and repeated stops for vehicles
(vi) Improves transparency of toll transactions
(vii) Reduces revenue leakages

World over, different ETC technologies are being used like:

(i) Dedicated Short Range Communications (DSRC)
  (a) 5.8 GHz Microwave (Passive) – Most of the European Countries
  (b) 5.8 GHz Microwave (Active) - Japan
  (c) CALM (Communication Air-interface, Long and Medium range) – Taiwan

(ii) Radio Frequency Identification (RFID) - USA, Mexico, Chile, Argentina, Dubai

(iii) GNSS/CN (Global Navigational satellite System/ Cellular Network) systems – Germany

(iv) Vehicle Identification System using number plates – London

Salient Recommendations of the Expert Committee Report

1. Interoperable Electronic Toll technology for seamless travel across National Highways in India
2. Recommended adopting RFID based on EPC, Gen-2, ISO 18000-6C Standards for Electronic Toll Collection on National Highways in India
3. Inexpensive Sticker Tags with unique IDs to be fixed on the windshield of the vehicle
4. All Toll plazas on National Highways to be equipped with Systems to read the Tags
5. Road users can buy / topup Tags at wide network of designated locations
6. Debit / Credit of account to be taken place at a central location.
7. Tag holders will be able to query account details through Web, Email, Mobile etc.
8. Tag systems can be used for other applications like Vehicle Tracking, Parking, Traffic enforcement etc.

Next Steps

After acceptance of the Report, MoRTH will engage a suitable agency for preparation of RFP document for engaging an international Consultant for implementation of ETC in India.

The selected international Consultant would:

(a) Prepare ETC Blueprint covering Standards/ Guidelines, Technical specifications etc.

(b) Prepare Bid documents for procurement of ETC systems and setting up of Central Clearing House.

(c) Supervise installation / commissioning of ETC systems at Toll Plazas, setting up of Central Clearing House etc

(d) Conduct System Acceptance Testing

(e) Monitor / technical assistance for a period of 12 months during operation period.

Expected timelines for implementation of ETC on NHs in India.

(i) Submission of Report by the Committee - 02.07.2010

(ii) Acceptance of the Report by the Govt. – End July

(iii) Engagement of a suitable agency for preparation of RFP document – Sept 2010.

(iv) Preparation of RFP for engagement of international Consultant – Nov 2010.

(v) Approvals, Invitation of bids, pre-bid meeting, receipt of bids, evaluation of bids, award of contract, commencement of consultancy services - Feb 2011.

(vi) Preparation of ETC Blueprint / Bid documents for procurement of Hardware / Software and setting up of CCH – May 2011

(vii) Procurement of Hardware / Software and setting up of CCH (Approvals, Invitation of bids, pre-bid meeting, receipt of bids, evaluation of bids, award of contract) – Aug 2011

(viii) Installation / Commissioning of ETC systems at toll plazas, setting up of CCH and Networking of all Toll Plazas – Mar 2012

(ix) Operation of nationwide ETC systems on National Highways – May 2012