

TRANSPORT DEPARTMENT

3.2 Information technology audit of the Department of Transport

Highlights

- * The department did not prepare an IT strategy or an IT plan leading to adhoc IT implementations. The department also did not have adequate documentation, password policy, disaster recovery plan and business continuity plan.
(Paragraph 3.2.5.1)
- * Disparate IT applications resulted in sub optimal benefits from the use of Smart Card technology.
(Paragraph 3.2.5.2)
- * The objective of optical memory strip on smart card mooted to dispense with all paper based files related to registration of vehicles was not achieved.
(Paragraph 3.2.5.3)
- * The contracts with the vendors were not managed properly leading to undue advantages to the vendors apart from burdening the citizen to the extent of Rs. 30.61 crore and non-recovery of dues of Rs. 2.18 crore.
(Paragraphs 3.2.6 and 3.2.8.1)
- * Deficient application controls rendered the data unreliable.
(Paragraph 3.2.7.2)
- * Failure to implement timely change led to short recovery of the permit fee of Rs 26.65 lakh.
(Paragraph 3.2.7.4)
- * The department had deficient controls on the issue of fancy numbers and re-issue of the cancelled driving licences.
(Paragraphs 3.2.7.5 and 3.2.8.3)

3.2.1 Introduction

The Transport Department of the Government of NCT of Delhi is responsible for improvement of the public transport system in the NCT of Delhi. The Transport Department has undertaken computerisation of all its major operations such as registration of vehicles, collection of road tax and issue of permits, driving licenses, fitness certificates, pollution control certificates etc.

The computerisation of registration activities was conceptualised in April 1991 which was used to generate paper based registration certificates (RC). The idea of using Smart Card technology for driving license and vehicle registration was mooted in 1999 by the Ministry of Road Transport and Highways (MORTH) of the Government of India in order to make the system configuration and technical specifications uniform throughout the country. NIC developed VAHAN for implementing the Smart Card technology in registration of vehicles and SARATHI for computerisation of issue of driving

licence. The department incurred a total expenditure of Rs. 7.38 crore during 2003-08 on computerisation.

The computerisation activities of the department were previously reviewed in 2003 and included in the 'Report on Government of NCT of Delhi of 2005' of Comptroller and Auditor General of India.

3.2.2 Organisational set up

The Transport Department is headed by the Secretary cum Commissioner (Transport) who is assisted by one Special Commissioner, three Joint Commissioners, eight Deputy Commissioners and one Assistant Director. The department presently has 13 zonal offices headed by Motor Licensing Officers. The computerisation activities in the department are under the charge of the Joint Commissioner who is assisted by a Deputy Commissioner (Computers) along with System Analyst, Programmers, Assistant Programmers, Console Operators and Data Entry Operators.

3.2.3 Scope of audit

The scope of information technology (IT) audit of the Transport Department included examination of selected computerised applications like registration of vehicles, issuance of driving licences and collection of fees and road tax. VAHAN implemented for the non-transport (private) vehicles, was examined during audit. VAHAN for transport (commercial) vehicles was implemented for registration of new auto-rickshaws only and, therefore, the legacy system for the transport vehicles was examined as a follow up of the earlier audit. The data analysis for driving licences was done from 1998 onwards as the relevant data could not be covered in the earlier audit and that for registration of vehicles was done from 2004 onwards. Audit also looked at issues related to award of contracts that could not be covered in the earlier audit and their implications.

3.2.4 Audit objectives

The review was conducted with a view to examine whether:

- * the system was adequate and covered all the functions of the department;
- * the data was accurate and complete ;
- * business rules were mapped into the system ;
- * the applications were delivering what was expected ; and
- * the issues brought out in the earlier audit report were followed upon.

The organisation and its functions were studied through interaction, observation and study of documentation available. Data dump was obtained and analysed using CAATs. The review report was forwarded to the department in October 2008; their reply has not been received (December 2008).

Audit Findings

3.2.5 Planning

3.2.5.1 In order to achieve the desired objectives there should be a proper 'Information Technology Strategy' and a well defined IT Plan. However, no IT strategy or IT plan was formulated till date. This led to non-implementation of applications like SARATHI for driving licences, continuation with HCL beyond the stipulated period of agreement for issue of driving licences and continuation with the legacy application for commercial vehicles, even though VAHAN was available since September 2004.

The department did not have a copy of the user requirement specifications (URS) for any of the applications. The documentation of the application system for its maintenance, testing and its results were also not available. Further, changes made to the system were not documented and were carried out in an adhoc manner.

It was also noticed that the department lacked a well defined and documented password policy. It had not developed a documented 'Disaster Recovery and Business Continuity Plan'.

3.2.5.2 The department replaced the old application with the new 'VAHAN' application (developed by NIC) in September 2004 for registration of private vehicles whereas MORTH had recommended that the smart card system should be made compulsory for all commercial vehicles and optional (for the vehicle owner) for private vehicles. Further, the department failed to integrate the databases of commercial vehicles, kept separately for auto rickshaws, vehicle inspection and taxies, and heavy transport vehicles at headquarters as it did not implement VAHAN and continued to use the legacy software for registration of commercial vehicles. Thus the primary objective of the implementation of Smart Card technology remained grossly unachieved.

3.2.5.3 The department chose Smart Card with optical memory strip in addition to other requirements of MORTH. The use of optical memory strip on smart card was mooted to dispense with all paper based files related to registration of vehicles. It was, however, seen that the relevant paper based files continued to exist and the department continued to rely on them.

3.2.5.4 The smart card was not having card serial number or hologram for identification. Thus authenticity of the cards could not be assured.

3.2.6 Contract Management

The department invited tenders for implementation of Smart Card for registration of vehicles in February 2001 and agreement was signed with the only selected vendor 'M/s Shonkh Technologies International Ltd. (STIL)' in 2003. The process of selection and award of work to the vendor had various lapses which were also noted by Public Accounts Committee (PAC) in March 2006. The department contested the recommendations made by PAC. However, audit further observed that:

3.2.6.1 The agreement was not guided by the stipulated conditions given in the tender. The department excluded, modified and included some new conditions to favour STIL as below:

- * the clauses relating to performance of the contract obligations viz. forfeiture of performance security, liquidated damages, termination of contract for default and ensuring availability of services (up time), time limit for issue of each card which were available in the tender document were excluded from the agreement ;
- * clause related to right to terminate the contract was also extended to STIL modifying the initial tender provisions ;
- * fresh clauses regarding guaranteeing/ensuring the total number of smart cards issued during the period of contract (40 lakh cards) were included in the agreement and in case of any short coming STIL was given the right to extend the contract till the issue of guaranteed cards. Even in case of non-extension of contract by STIL, it was assured of a sum of Rs. 50 per card for the short achievement of target. This combined with the right on part of the STIL to terminate the contract prematurely put the department at a risk of liability to pay a sum of Rs. 50 per card for short achievement of the target of 40 lakh cards.

3.2.6.2 The department allowed STIL to charge Rs. 370 directly from the general public and issue receipt thereof. This increased the registration process by one step. Further, the receipts issued by STIL did not indicate that they were on behalf of the department.

3.2.6.3 As per Central Motor Vehicle Rules (CMVR) 1989 the maximum fee chargeable for smart card was Rs. 200. The department levied additional fee of Rs. 170 as it intended to include additional information¹ on Smart Card which was to be collected from various bodies viz. police, excise and other states zonal offices. However, the department could not collect these additional information and no procedure for capturing and storing additional information were established either. The STIL had issued 18,00,829 Smart Cards to owners for new registration and was thus allowed to collect an extra amount of Rs. 30.61 crore.

3.2.6.4 The smart cards were to be updated with information in respect of insurance, pollution, fitness, permit, hypothecation, tax, challans and endorsements at the rate of Rs. 10 per updation. However, it was seen that the information was not updated on the earlier card and new cards were being issued leading to overcharge of Rs. 360 per card.

3.2.6.5 The notification issued by department regarding collection of registration fees at the rate of Rs. 370 was in contravention of the Central Motor Vehicle Act, 1988 as power to make the rules regarding fee to be charged was with the Central Government under Section 64 of the Act.

¹ The additional information on smart card required was : the previous details of tax record of cardholder; past history of accident(s) by the cardholder; biometrics (thumb impression, photographs, etc.) ; complete database of pending prosecution cases received from other zonal offices and other States ; particulars of wanted notes received from other Government departments, i.e. Police, Excise, etc.; and any other relevant information ordered to be included from time to time.

Moreover the final notification was not issued with the approval of the competent authority.

3.2.7 Applications for vehicle registration and road tax

Registration of vehicles is mandatory for private as well as commercial vehicles. Private vehicles are registered through dealers engaged in the sale of such vehicles or directly by the owner and the commercial vehicles are to be registered by the owner. The database of the registration of vehicles contained particulars of 13.15 lakh private vehicles and 71,304 commercial vehicles registered from 2004 onwards.

3.2.7.1 Completeness

Incompleteness of database means missing essential information. Incompleteness in the database prevents business rules from being implemented effectively and thereby adversely affects reliability of the system. The database did not have certain essential information as below:

- * the address of registrants (561 cases), engine number of 562 cases, RC card chip number (65,980 cases) and insurance cover note number (3,163 cases) were not found in the database for the private category of vehicles; and
- * similarly, for the commercial category of vehicles, issue date of permit (20,406 cases), address of registrants (115 cases), engine number of vehicles (122 cases), insurance cover note details (380 cases), disposal date and authority in case of disposed notices related to violation of rules (520 cases) and end date of road tax (18875 cases) were found not to have been entered.

The incompleteness in the database made it unreliable and application of the business rules could not be assured.

It was further seen that the data entry was not done even when the details were available. In case of the RC cards, no document was being maintained for chip number after the data entry due to which subsequent verification of the correctness of the data could not be carried out.

3.2.7.2 Application controls

Input control and validation checks

Input controls and validation checks over input are vital for integrity of the data and essential to check incorrect data being fed. Adequate input and validation controls ensure that data entered is complete and correct. The following deficiencies were noticed due to absence of input controls and validation checks:

- * **Input Control**

Duplicate entries were seen in case of private vehicles in respect of the receipt numbers for the registration fee (589 cases), NOC application numbers (325 cases), engine and chasis numbers (89 cases), insurance cover note number (45,307 cases), RC card chip numbers (50,168 cases).

Test check revealed that in 10 out of 14 cases, chasis and engine numbers and in 12 out of 59 cases insurance cover note numbers were duplicate and rest were due to errors in data entry. Similarly, duplicate entries were seen in case of commercial vehicles in respect of the receipt numbers for the registration fee (45 cases), insurance cover note numbers (2,430 cases), permit numbers (4210 cases – 256 of these for all India permits and 3,638 for vehicles from Haryana state).

Test check further revealed that in two out of two cases of All India Tourist Permit numbers and in 43 out of 54 cases insurance cover note numbers were found duplicate.

*** Validation Checks**

The engine and chasis numbers were captured in the database on the basis of the details provided by the owner. The same were further captured on respective smart cards. However, for the private vehicles, in 80 cases the details of the engine and chasis numbers given by owners did not match with that for the smart card in the database.

It was noticed in 5,369 cases of private vehicles that the date of registration was prior to that of the purchase itself. Test check revealed that in 14 cases out of 32 selected, the date of registration was prior to the purchase date while for the rest 18 cases it was a data entry error.

Similarly, it was noticed that the date of the end of permit was prior to the date of the start of the permit in 63 cases of commercial vehicles.

In 245 cases, commercial vehicles from the other states were registered without the corresponding entries for NCRB clearance.

Test check of physical records revealed that the above were due to deficient input control.

3.2.7.3 Manual intervention

*** Recovery of road tax**

The analysis of data revealed that the rates for road tax was not applied correctly on 7,625 private vehicles due to manual intervention in application of rates. Out of these, 7,373 were registered by the dealers.

Test check of physical records revealed that in 11 out of 14 cases less amount of road tax was charged while in three cases wrong sale amount was entered in the database.

The rate of road tax for commercial vehicles was categorised in two ways viz. one for transport passenger vehicles based on seating capacity and other for transport goods vehicles based on laden weight. During the analysis of the data it was observed that the prescribed rates were not applied uniformly on all the vehicles due to manual intervention, which resulted in short recovery of road tax of 4,055 commercial vehicles. Test check of physical records revealed that in 10 out of 10 cases less amount of road tax was charged.

3.2.7.4 Change management

* Recovery of permit fee

The rates of permit fee were revised with effect from August 23, 2004 as Rs. 1,500, 2,000, and 2,500 for local taxies, light transport/goods vehicle and heavy transport/goods vehicles respectively. During the analysis of data, it was observed that new rates were not incorporated into software with effect from 23 August 2004 which resulted in short recovery of permit fee of Rs. 26.65 lakh on 2,162 vehicles as under:

Sl. No.	Description	No. of records/ vehicles where less amount of permit fee was recovered	(Rupees in lakh)
			Amount of permit fee short recovered
1.	Taxies and light passenger	331	3.24
2.	Light/Heavy transport/goods vehicles	1,831	23.41
Total		2,162	26.65

3.2.7.5 Issue of fancy registration number

The department had issued 21,522 fancy numbers from 2004 onwards out of which 17,115 fancy numbers were issued by awarding a new registration mark 'F' for vehicle class. However, the orders pertaining to the start of the new series was not found on records. The start of new series enabled the department to issue unlimited fancy numbers as it bypassed the available 136 fancy numbers in a particular series. The use of the different series 'F' also rendered identification of the class of vehicles difficult.

The allotment of fancy numbers in any series was frozen with effect from 8 August 2007. It was, however, observed that the department had issued fancy numbers to 12 vehicles even after 8 August 2007 under both 'F' and regular series.

3.2.8 Application for driving licence

3.2.8.1 Contract management

The department invited tenders in 1997 to computerise driving licences and awarded the task to M/s HCL in March 1998 for all nine zones. As per the terms, the firm was to undertake the task on 'Build Own Operate Transfer' (BOOT) basis.

As per the agreement, if total number of licences issued exceeds 2.50 lakh in a year, the HCL was to pay the department at the stipulated rate of Rs.5 per licence exceeding 2.50 lakh; Rs. 10 per licence exceeding 2.75 lakh; Rs.15 per licence exceeding 3 lakh; and Rs. 20 per licence exceeding 3.25 lakh. M/s HCL had issued 36,15,615 licences from 1998-99 to 2007-08. Accordingly, the amount to be transferred to the department was Rs. 2.18 crore (Rs. 2.23 crore – Rs. 4.58 lakh paid by HCL) till March 2008 as given in 'Annexure III'. This was also mentioned in earlier Audit Report on the Government of NCT of Delhi of 2005. The department had taken no steps to ensure periodic recovery of the dues from HCL. It had a provision of performance guarantee

of Rs. 2.71 lakh in the agreement which was insufficient. As HCL was collecting the charges directly from the licensee, the department, further, had no mechanism to recover its dues from HCL.

3.2.8.2 Business rules mapping

Section 7 of the Central Motor Vehicles Act stipulates that licence to drive a transport vehicle can be granted only if the person is holding a licence to drive the non-transport vehicle for at least one year. Non-mapping of this business rule led to issue of 19,947 licences to drive transport vehicles.

Section 6 of the Act prohibits a person to hold more than one driving licence. Non-mapping of this business rule led to absence of relevant input controls leading to issue of two or more licences to 6,021 persons aggregating 12,085 duplicate records.

3.2.8.3 Re-issue of cancelled driving licence

The department cancelled approximately 1,203 driving licences till June 2008 related to persons involved in fatal accidents and put their details on department's web site. During the test check, the details of 782 persons out of 1,203 could be traced in the database. An analysis revealed that as many as 61 persons out of such 782 were re-issued driving licence whose licences were cancelled.

3.2.8.4 Pilot project for SARATHI

The Department of Information Technology (DIT) of Government of India directed under e-Governance project to computerise the issuance of driving licences. The SARATHI software for issuance of driving licences developed by NIC was to be implemented for the purpose. The department selected Sheikh Sarai zonal office as pilot zone in July 2003 for implementation of Smart Card based driving licence. The project was to be completed by March 2004 and was to be extended to other zones covering all zones by July 2004. The department spent Rs. 66.08 lakh for procurement of hardware and putting in order the required infrastructure. The pilot project, however, could not be completed in Sheikh Sarai zone leading to an idle investment of Rs. 66.08 lakh.

3.2.9 Conclusion

The department did not have an IT strategy or an IT plan leading to absence of direction in the IT implementations. Thus there were disparate implementations of VAHAN and SARATHI. The department tried to incorporate additional features over and above that recommended by MORTH, like optical stripes in the Smart Card making the functioning of the department, with respect to registration, paper less and including six additional information on the smart card, which ultimately led to increase in the cost of the cards. However, none of these objectives were achieved, which further, burdened the citizen in terms of additional charges that were collected by the vendor directly. The department did not manage the contract well to ensure that undue benefits to the vendors were not extended, the citizens were not unduly burdened and the department's interests were protected. The system

further was compromised when complete information was not captured in the database, deficient input controls and validation checks, non-mapping of business rules and manual interventions made the data unreliable. The department could also not utilise the system to exercise control on the re-issue of cancelled licences and issue of fancy numbers. Some of these issues were already pointed out by the audit in its earlier report but the deficiencies continued to exist.

3.2.10 Recommendations

The Government may consider:

- * developing an IT strategy and an IT plan to avoid adhoc implementations ;
- * ensuring implementations of VAHAN covering all categories of vehicle and SARATHI ;
- * strengthening of input controls and validation checks to ensure data completeness and correctness ;
- * complete avoidance of manual interventions ; and
- * giving due attention to contract management to avoid undue burden on the citizen and protect the interests of the department apart from monitoring the activities of the vendors.

3.3 Loss of revenue due to non-renewal of registration of private vehicles

Under Section 39 of the Motor Vehicle Act, 1988 and rules made thereunder, every vehicle plying on public roads is required to possess a valid certificate of fitness/registration, which is issued by the State Transport Authority against the payment of the prescribed fee. In case the fitness certificate is not renewed by the due date, the registration of the vehicle becomes invalid and it cannot be driven on public roads. Private vehicles are registered for a period of 15 years and are required to renew their registration thereafter.

Test check of the records of the Transport Department for the year 2006-07 conducted during January 2008 revealed that 16,28,047 vehicles whose validity of registration expired on 31 March 2007 had not come forward to renew their registration. This resulted in non-realisation of Rs. 15.69 crore towards renewal fee as detailed in Annexure IV.

After the matter was reported to the department and the Government in May 2008, the department stated in September 2008 that the number of unregistered private vehicles included vehicles which were transferred outside Delhi without No Objection Certificate and those sold as scrap and stolen. The details of these vehicles were, however, not provided.

New Delhi

Dated:

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Comptroller and Auditor General of India

ANNEXURE - III
(Referred to in paragraph 3.2.8.1)

Amount Due from HCL on account of excess licences issued per year						
Year	No of licences issued	Exceeding 2.5 lakh and less than 2.75 lakh	Exceeding 2.75 lakh and less than 3 lakh	Exceeding 3 lakh and less than 3.25 lakh	Exceeding 3.25 Lakh	Total amount due
		Amount due at the rate of Rs. 5	Amount due at the rate of Rs. 10	Amount due at the rate of Rs. 15	Amount due at the rate of Rs. 20	
1998-99	1,39,872	-	-	-	-	-
1999-00	3,71,878	1,25,000	2,50,000	3,75,000	1,437,560	2,187,560
2000-01	3,72,849	1,25,000	2,50,000	3,75,000	1,456,980	2,206,980
2001-02	3,48,515	1,25,000	2,50,000	3,75,000	970,300	1,720,300
2002-03	3,66,741	1,25,000	2,50,000	3,75,000	1,334,820	2,084,820
2003-04	3,62,551	1,25,000	2,50,000	3,75,000	1,251,020	2,001,020
2004-05	3,92,980	1,25,000	2,50,000	3,75,000	1,859,600	2,609,600
2005-06	4,10,524	1,25,000	2,50,000	3,75,000	2,210,480	2,960,480
2006-07	4,18,269	1,25,000	2,50,000	3,75,000	2,365,380	3,115,380
2007-08	4,31,436	1,25,000	2,50,000	3,75,000	2,628,720	3,378,720
Grand Total	36,15,615	1,125,000	2,250,000	3,375,000	15,514,860	22,264,860

ANNEXURE - IV
(Referred to in paragraph 3.3)

Sl. No.	Type of vehicle	No. of vehicle due for re-registration as on 31.03.07	Prescribed re-registration fee per vehicle (in Rupees)	Total fees (Rs. in lakh)
1.	L.M.V. (Car)	353,592	200	707.18
2.	L.M.V.(Jeep/Gypsy)	32,217	200	64.43
3.	L.M.V.(Van)	22,167	200	44.33
4.	Moped	51,717	60	31.03
5.	Motor Cycle	168,365	60	101.02
6.	Scooter	997,119	60	598.27
7.	L.M.V.(Imported)	2,827	800	22.62
8.	Motor Cycle (Imported)	14	200	0.03
9.	Invalid Carriage	29	20	0.01
Total		1,628,047		1568.92