

ITEM FOR FINANCE COMMITTEE

CAPITAL WORKS RESERVE FUND

HEAD 710 – COMPUTERISATION

Transport Department

New Subhead “Vehicles and Drivers Licensing Integrated Data System Infrastructure and Application Enhancement Project”

Members are invited to approve the creation of a new commitment of \$312,883,000 for enhancing the infrastructure and application of the Vehicles and Drivers Licensing Integrated Data System of the Transport Department.

PROBLEM

The Transport Department (TD) needs to enhance the infrastructure and application of the Vehicles and Drivers Licensing Integrated Data (VALID) V System and replace its ageing database system and architecture, with a view to meeting operational needs and improving system functionality and performance.

PROPOSAL

2. The Commissioner for Transport, with the support of the Secretary for Transport and Logistics and the Government Chief Information Officer, proposes to create a new commitment of \$312,883,000 for replacing the infrastructure and application of the VALID V System, with a view to enhancing its functionality, performance and capacity, as well as providing support for various e-licensing initiatives of TD, thereby facilitating the future digitalisation development of TD and providing more efficient licensing services for the public.

/JUSTIFICATION

JUSTIFICATION

Enhancing the System for Delivery of More Quality Services to the Public

3. In order to continuously improve services and align with the Government's "Be the Smart Regulator" Programme, as well as to respond to the increasing demand for licensing services from the public, TD is committed to implementing e-licensing initiatives to further enhance operational efficiency and provide convenience to the public during the application process. Currently, TD offers 20 online licensing services¹, and has rolled out e-permits² by phases since late 2022. Electronic vehicle licences³ are planned for introduction in 2024, while electronic driving licences⁴ are planned for introduction between late 2024 and early 2025. Besides, TD will launch the e-licensing portal in the second half of 2024, which will display licence-related information of public users in the form of a dashboard. Through the links on the portal, public users can also submit applications, check the expiry dates and the application progress of their licences, and receive reminders on licences expiring soon, etc. In addition, TD plans to launch an e-auction for vehicle registration marks in late 2024, allowing members of the public to bid for certain traditional vehicle registration marks online. TD is gradually introducing artificial intelligence technology for reviewing and approving applications received for various licences, with a view to speeding up the processing.

4. The implementation of the above e-initiatives requires access to relevant data through the VALID System, and it is necessary to upgrade the VALID System accordingly to cope with the digitalisation of licensing services. As the VALID V System has been gradually lagging behind the advancements in information technology (IT), TD often needs time to develop provisional

/systems/functions

¹ Such services include renewal of vehicle licences, new issue of driving licences and international driving permits.

² E-permits are issued in "portable document format" (pdf) and sent to applicants by email for printing and display. The initiative further enhances operational efficiency, provides convenience to the public during the application process and improves the public's experience when applying for licences.

³ Upon the introduction of electronic vehicle licences by TD, the expiry date will no longer appear on the paper-form vehicle licences. Vehicle owners will no longer have to replace their paper-form vehicle licences upon each renewal after the first issuance of such licences without a printed expiry date. Meanwhile, TD will set up a free online enquiry platform for vehicle owners to check the expiry dates of vehicle licences. TD will also simplify the supporting documents required for application for renewal of vehicle licences, including no longer requiring the submission/uploading of the Certificate of Roadworthiness, the Vehicle Registration Document and the Third Party Risks Insurance Policy.

⁴ While physical driving licences will continue to be issued by TD, electronic driving licences will be presented via a mobile application on smartphones. Driving licence holders may log onto the mobile application after completing the identity authentication process, and opt for bringing along either the physical driving licence or the electronic driving licence when driving.

systems/functions when developing e-services to make up for the constraints in capabilities and capacity of the existing VALID V System. However, these provisional systems/functions have their limitations and are not effective in saving processing time. For instance, the provisional systems/functions may not be able to reflect real-time data and improve the availability of the VALID System. Besides, given that the VALID V System and the provisional systems/functions have to exchange a large amount of data continuously for a prolonged period, additional support measures are required to safeguard data integrity. In the long run, it is necessary to build relevant capabilities and capacity within the VALID System to replace the operation mode of using standalone provisional systems/functions, with a view to more effectively supporting the implementation of various e-initiatives in the long run, thereby delivering better services to the public.

5. The proposed enhancements to the VALID System will adopt more innovative technologies to replace the provisional systems of the VALID V System, including the setting up of a new enquiry database (Enquiry DB)⁵. Apart from supporting higher availability of services, the Enquiry DB will provide a standardised application programming interface for the systems of TD and other user departments to streamline the integration among them, so that other systems can more directly retrieve the latest data from the VALID System. With improved capacity and performance, the enhanced VALID System will be able to better cater for the implementation of e-initiatives and the demand of other user departments for voluminous data access through the system. Besides, the Enquiry DB will be able to support near-real-time data update.

Mitigating the Risk of Disruption in the Supply Chain of the System

6. As proprietary products are used in the existing VALID V System, it is not ideal in terms of compatibility with other products. If the supply chain of core components is disrupted unexpectedly, there will be a risk of the VALID System becoming inoperable. Therefore, TD plans to replace the core database components with open source products or national/local brand software at the same time. Since the proposed project is a large-scale one involving the migration of the

/entire

⁵ The proposed new Enquiry DB will support other systems and users for retrieving large volumes of instant information on vehicle licences and driving licences, thus relieving the burden on the VALID System and mitigating the risk of data inaccuracy. In addition, instead of the “Active-Standby” operation mode adopted in the existing VALID V System, the proposed Enquiry DB will adopt the “Active-Active” operation mode after the proposed enhancements to the VALID System, allowing continued operation of the VALID System even when maintenance work is being carried out, thereby improving the availability of the relevant data enquiry services. TD has invited other user departments to offer views on the new business needs of the VALID System, so that the new generation of the VALID System can have sufficient capacity and capabilities to provide the latest information for various departments in a more efficient and stable manner. When designing the new generation of the VALID System, TD will consult the relevant user departments regarding the consolidated requirements of the new system so as to meet future demands.

entire core database of the VALID V System to a new management system, TD will carry out the migration arrangements carefully to ensure the smooth daily operation of the system.

Ensuring System Sustainability and Strengthening Information Security

7. The maintenance contract of the existing VALID V System will expire in November 2027, and the implementation of the new VALID System should be completed before the expiry of the maintenance contract. Some core components of the VALID V System were developed on the basis of earlier designs, and have been utilised for more than 15 years. While these components are still functional at present, the production of certain core components has been discontinued. The reliable operation of the VALID System is crucial to the delivery of effective services by TD and various government departments. If the operation of the system is interrupted due to inadequacy in maintenance or there are information security problems with the system, the normal operation of the relevant departments will be severely affected, the provision of licensing services to the public will be interrupted, and adverse impacts on the operation of the transport sector may also be resulted. In addition, given that the VALID System contains information of more than two million driving licence holders and 800 000 registered vehicle owners, we have to continuously adopt effective measures to protect the security of personal data. It is therefore necessary to replace the ageing system security components in a timely manner to sustain effective maintenance and support services, and introduce a new generation of security management measure and monitoring mechanism. TD will safeguard the security of the VALID System by replacing outdated components, and adopt a new generation of IT security solution⁶. TD will also establish a satellite site under the Government Cloud Infrastructure Services (GCIS) in accordance with the requirements of the government cloud architecture framework set out by the Office of the Government Chief Information Officer (OGCIO) to enhance data security of the system.

EXPECTED BENEFITS

8. The completion of the proposed enhancements to the VALID System will enhance its scalability and facilitate its connection with the systems of other departments, thus laying down the foundation for continuous introduction of new technologies and service improvement initiatives. TD will then be able to develop new e-initiative services more efficiently, and further enhance public user experience and service efficiency. Specifically, through enhancement in the

/capacity,

⁶ Enhancing the VALID System will strengthen security information and event management by centralising the collection of log and event records from various equipment of the system to detect irregular activities, thereby achieving comprehensive and proactive monitoring of potential security threats and enabling responding to security issues and incidents more promptly.

capacity, performance and data updating capabilities, the proposed project will strengthen the sustainability of the VALID System. With the setting up of the Enquiry DB, relevant systems will be able to retrieve near-real-time data directly from the Enquiry DB as necessary, thereby replacing the provisional systems for supporting the e-initiatives. Examples include providing the Traffic e-Enforcement System of the Hong Kong Police Force with data enquiry service in relation to vehicles and drivers' information, as well as the data enquiry services in relation to electronic vehicle licences and electronic driving licences, etc.

9. The proposed enhancements to the VALID System will lay a good foundation for stepping up the digitalisation of licensing services, appealing to more applicants to submit online applications for licences and permits, saving themselves from the need and time to wait for counter services. This will foster the digitalisation of services and bring about overall social benefits. The VALID System currently supports TD in processing licensing applications for over two million driving licence holders and 800 000 registered vehicle owners. Apart from attending at a Licensing Office in person for processing licensing applications over the counter, applicants may also submit their applications through non-counter channels such as online, drop-in boxes or by mail. As mentioned above, TD is committed to expanding its e-licensing initiatives with online licensing services and simplified application procedures, so as to further enhance operational efficiency, and allow members of the public to submit licence applications anytime and anywhere by making use of the digital signing and/or "e-ME" form-filling functions via "iAM Smart" without having to wait for counter services at the Licensing Offices⁷. For example, having simplified the supporting documents required for application for renewal of vehicle licences, including no longer requiring the submission/uploading of the Certificate of Roadworthiness, the Vehicle Registration Document and the Third Party Risks Insurance Policy, the processing time for applications is estimated to reduce from ten working days to three working days, thus paving the way for full automation of the processing procedures. Moreover, with the launch of the one-stop online e-licensing portal, members of the public can better keep track of and manage their vehicle licences as well as driving licences and permits under their names, which will help enhance the experience of online application for various licences. In the long run, if the demand for counter services decreases, counters at the Licensing Offices can focus their efforts in processing applications which still require to be submitted in person, such as those for transfer of vehicle ownership and direct issue of driving licences without test. With flexible manpower deployment, the waiting time for counter services at the Licensing Offices by applicants may also be shortened. In summary, the proposed

/project

⁷ Currently, the Licensing Offices provide members of the public with counter services by online booking or phone appointment. For a prior appointment, it normally takes within 30 minutes approximately to complete the processing of application. If members of the public choose to obtain same-day queue tickets via the Queue Ticketing System for Driving Licensing-related Services, they do not have to stay and wait at the Licensing Offices, and counter services will be completed within 30 minutes approximately following the calling of their ticket numbers.

Encl. 1

project will help save the time of vehicle licence and driving licence applicants. A scenario analysis of the social benefits that the proposed project can bring about is set out at Enclosure 1.

10. While enhancing the infrastructure and application of the VALID System, TD will replace the core database components of the VALID System with open source products or national/local brand software, thus providing us with a wider range of software options during procurement. This will mitigate the risk of suppliers discontinuing the supply of product components and services, address potential supply chain issues of technology products arising from geopolitical tensions, and lower the risk of service interruption which will pose adverse impacts on the public and operations of other relevant government departments.

11. The proposed project will sustain effective maintenance and support services by replacing outdated components. Besides, the new system will enhance IT security measures and strengthen system protection. Overall speaking, it is necessary for TD to implement the proposed project to ensure sustainable operation of the VALID System and support the digitalisation of more licensing services in the future.

FINANCIAL IMPLICATIONS

Non-recurrent Expenditure

12. We estimate that the proposed project will involve a non-recurrent expenditure of \$312,883,000 for the period from 2024-25 to 2029-30, with breakdown as follows –

	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	Total
	(\$'000)	(\$'000)	(\$'000)	(\$'000)	(\$'000)	(\$'000)	(\$'000)
(a) Hardware	-	8,465	16,929	-	-	-	25,394
(b) Software	-	3,718	7,437	-	-	-	11,155
(c) Communication network	-	2,968	5,858	333	333	79	9,571
(d) System Implementation services	-	20,890	48,625	55,038	34,147	-	158,700
(e) Contract staff	10,274	11,208	11,208	11,208	10,520	510	54,928
(f) Training	-	-	-	350	350	-	700
(g) Others	990	8,998	3,826	3,826	3,755	2,596	23,991
(h) Contingency	1,126	5,625	9,388	7,076	4,911	319	28,444
Total	12,390	61,872	103,271	77,830	54,016	3,504	312,883

13. On paragraph 12(a) above, the estimate of \$25,394,000 is for procuring computer hardware, including servers, storage area network storage, virtual backup equipment and system security equipment, etc.

14. On paragraph 12(b) above, the estimate of \$11,155,000 is for procuring various software, including virtualisation software, application system, network and system management software, system security software (such as the security information and event management solution) and database management system, etc.

15. On paragraph 12(c) above, the estimate of \$9,571,000 is for procuring communication network, including network equipment and telecommunications line rental fees during the setting up of the system.

16. On paragraph 12(d) above, the estimate of \$158,700,000 is for engaging external service providers for implementation services, including overall project management, infrastructure design and setting up, system migration, database migration, development of the new Enquiry DB, strengthening the system and security equipment set-up, programme enhancement, data conversion, providing technical support for user acceptance tests (UATs), as well as system roll-out and maintenance, etc. The proposed project is a large-scale one involving the migration of the entire core database of the VALID System to a new management system. Given the complexity of the proposed project and the significance of the VALID System, the project should be carried out in a prudent manner. It is also necessary to ensure the smooth migration of the existing system to the new system to avoid affecting the vehicle and driving licensing services and the relevant traffic enforcement. TD, therefore, has to engage an external service provider for the project implementation, with a view to safeguarding the smooth operation of the system.

17. On paragraph 12(e) above, the estimate of \$54,928,000 is for hiring professional IT contract staff. Since the proposed project is a large-scale one involving the migration of the entire core database of the VALID System to a new management system, TD has to engage professional IT contract staff with relevant skills and experience, in addition to the internal management and supervisory team taken up by the incumbent staff of TD as described below, to carry out preparatory work, project planning, monitoring and system acceptance testing.

18. On paragraph 12(f) above, the estimate of \$700,000 is for providing relevant training services for internal staff.

19. On paragraph 12(g) above, the estimate of \$23,991,000 is for other items, which include making relevant arrangements for system development and acceptance testing, as well as performing independent third party assessments of information security risks and privacy impact assessments, etc.

20. On paragraph 12(h) above, the estimate of \$28,444,000 represents a 10% contingency on the items set out in paragraphs 12 (a) to (g) above.

Other Non-recurrent Expenditure

21. TD will have to deploy an internal management and supervisory team for the implementation of the proposed project, including tendering, project management, monitoring of system analysis and design, and UATs. The project team will entail a non-recurrent staff cost of \$19,946,000 from 2024-25 to 2028-29, which will be absorbed by TD's existing resources.

Recurrent Expenditure

22. The estimated recurrent expenditure for the proposed project will be \$16,221,000 in 2027-28, and will increase to \$37,157,000 per annum from 2029-30 onwards, with breakdown tabulated below. After offsetting the annual realisable savings of \$27,533,000 as mentioned in paragraph 32 below, the proposal will require a net annual recurrent expenditure of \$9,624,000 from 2029-30 onwards.

	2027-28	2028-29	2029-30 onwards
	(\$'000)	(\$'000)	(\$'000)
(a) Hardware and software maintenance	7,993	11,989	11,989
(b) Communication network	547	821	821
(c) Cloud services	560	840	840
(d) Ongoing system support services ⁸	-	8,550	12,825
(e) Contract staff	6,600	9,900	9,900
(f) Consumables	227	340	340
(g) Others	294	442	442
Total	16,221	32,882	37,157

/23.

⁸ TD will enter into an agreement with the service provider, which will cover the implementation service and ongoing support service for the VALID VI System. It is anticipated that the ongoing support service will commence upon completion of Phase 2 of the project (i.e. 2028-29), and the cost will be regarded as recurrent expenditure.

23. On paragraph 22(a) above, the annual estimate of \$11,989,000 is for the maintenance cost of system hardware and the software licence renewal cost to support the new infrastructure.

24. On paragraph 22(b) above, the annual estimate of \$821,000 is for the rental of telecommunications lines.

25. On paragraph 22(c) above, the annual estimate of \$840,000 is for the service fee for the satellite site technology under the GCIS.

26. On paragraph 22(d) above, the annual estimate of \$12,825,000 is for ongoing system maintenance and support, helpdesk services, and minor application enhancements, etc.

27. On paragraph 22(e) above, the annual estimate of \$9,900,000 is for IT contract staff cost for regular system monitoring and ongoing system enhancement to the enhanced VALID System.

28. On paragraph 22(f) above, the annual estimate of \$340,000 is for consumable expenses for data centres, including data tapes, printer toner cartridges, etc.

29. On paragraph 22(g) above, the annual estimate of \$442,000 is for the maintenance cost of computer equipment in the Licensing Offices and miscellaneous expenses of data centres, etc.

30. Besides, the existing staff supporting and managing the VALID V System will continue to be responsible for the support and management of the new system. The annual staff costs involved will be \$13,857,000.

Cost Savings/Avoidance

31. The implementation of the proposed project will save the cost for maintaining the fundamental operation of the existing VALID V System for TD. The savings include an avoidance of a non-recurrent cost of \$21,463,000 originally provided for the essential upgrade to enhance the relevant facilities and system security equipment of the existing data centres and, from 2028-29 onwards, an avoidance of an additional annual recurrent cost of \$5,573,000 originally provided for the maintenance required to sustain the VALID V System upon the aforesaid upgrading.

32. With the implementation of the proposed project, it is estimated that there will be annual realisable savings of \$27,533,000 from 2029-30 onwards. The amount, which represents the costs of maintaining and supporting the existing VALID V System and the associated provisional systems, will offset part of the recurrent expenditure of the new VALID System.

33. In addition, the notional staff cost savings that can be achieved from 2029-30 onwards is \$441,000 per annum, as fragmented reduction in manpower can be achieved since support will no longer be required for the provisional systems for the existing VALID V System. Since the relevant manpower is currently deployed for supporting other application systems as well, the cost savings cannot be realised through deletion of posts. However, the fragmented manpower saved will be redeployed to support the regular enhancement to other systems of TD.

Encl. 2 34. The cost and benefit analysis for the proposed project is at Enclosure 2.

IMPLEMENTATION PLAN

35. TD completed the technical study for the proposed project and issued a Request for Information to relevant service providers in the market, inviting them to provide cost estimates for the project. Relevant information has been taken into account in formulating the relevant estimated expenditures.

36. In view of the complexity of the proposed project and the importance of the VALID System, the project should be implemented in an orderly and prudent manner. Sufficient time should also be allowed to ensure smooth transition from the existing system to the new one, in order to avoid any hiccups that may affect the vehicle and driving licensing services and the relevant traffic enforcement. TD will strictly follow the relevant guidelines issued by the OGCI, including strengthening the governance mechanism for major IT system projects, and ensuring the smooth implementation and prudent roll-out of the new system in order to meet the needs of departmental operation and the expectation on public services.

37. Taking into consideration the above factors and relevant reference information, it is estimated that the development of the proposed project will take around 52 months to complete upon commencement of the project, which comprises 16 months of preliminary work⁹ and 36 months of two-phased system implementation. The first phase of system implementation will commence in the

/third

⁹ The preliminary work includes the proof-of-concept work on migrating critical database components to open source products, pre-tendering work, preparation for system data centres and system testing sites, etc.

third quarter of 2025 and will last for 24 months, which will include the reprovisioning of the existing functions of the VALID System on a new infrastructure, the smooth roll-over of the system support service contract to the new contractor and the completion of the database system migration. While the first phase of system implementation is in progress, the second phase will kick-start in the second quarter of 2027, which focuses on expanding the system's application functions, setting up the new Enquiry DB and optimising the system settings. The second phase of the project is expected to complete in the third quarter of 2028. The proposed implementation schedule is set out below –

Activity	Estimated completion date
(a) Seeking funding approval from the Finance Committee (FC) of the Legislative Council (LegCo)	Q2 2024
(b) Site preparation ¹⁰ and tendering	Q3 2025
(c) Project implementation	
- System design	Q1 2026
- System implementation and UAT (Phase 1)	Q2 2027
- System live-run (Phase 1)	Q3 2027
- System implementation and UAT (Phase 2)	Q2 2028
- System live-run (Phase 2)	Q3 2028

PUBLIC CONSULATION

38. We consulted the LegCo Panel on Transport on the above proposal on 15 March 2024. Members supported the submission of the proposal to FC for funding approval. In response to the enquiries of some members, we have provided supplementary information in this paper, covering the cost-effectiveness of the proposed project, and the overall benefits and enhancement in efficiency that the project will bring to the community.

BACKGROUND

39. Since the launch of the VALID System in 1976, it has been supporting vehicles and driving licensing services such as registration of vehicles; issue and renewal of vehicle licences and permits; issue and renewal of driving licences and permits; arrangement of driving tests; and reservation, retention and assigning of vehicle registration marks. In addition to supporting the four Licensing Offices of

/TD

¹⁰ Site preparation includes preparation of data centre infrastructure such as power, ventilation, network, etc. for use by the relevant equipment of the new system to ensure smooth system implementation. It is also necessary to prepare relevant sites and facilities for use by the development and testing staff.

TD, the VALID System also serves other application channels, including postal delivery and drop-in boxes, providing a total of 60 types of licensing services for the public. When the VALID III System was upgraded to the VALID IV System in 2007, as a mainframe computer system architecture was still in use in the VALID III System, which was unable to support the development of online application services, TD had to redevelop the underpinning system architecture as a whole for upgrading to the VALID IV System in order to adopt a world wide web-based system architecture. In this connection, FC approved the creation of a commitment of \$110,000,000 on 29 June 2001. Details are set out in the LegCo paper FCR(2001-02)21.

40. On 24 January 2014, FC approved the creation of a commitment of \$71,284,000 for enhancing the infrastructure of the VALID IV System to the VALID V System. Details are set out in the LegCo paper FCR(2013-14)54. Since there was no major change in business needs at the time, it was not necessary to redesign or upgrade the main application system. There was also no need to procure and set up a new system to which all licence and permit-related data was to be transferred. The project mainly involved replacing the ageing hardware and software of the VALID System.

41. Currently, the VALID V System is connected to over 40 systems within and outside TD for, among others, data exchange across relevant online application systems to support the daily work of various government departments according to their needs. In 2023, a total of 7 443 000 transactions, including an average of over 10 000 transactions in relation to vehicle and driving licensing services every working day and a daily average of nearly 10 000 transactions in relation to traffic tickets, were processed and supported by the VALID System. Besides, the VALID System has facilitated TD's roll-out of a series of e-licensing initiatives by phases. With the rapid technological advancement, the hardware and software of the VALID V System have gradually become outdated, thus limiting its capability to address the growing demands from the public and user departments for existing and future services. In addition, the VALID V System is under the potential risk of supply chain disruption. In order to ensure that the system can meet future needs and address the supply chain-related risks, TD has to enhance the infrastructure and application of the VALID System, replace the ageing database system and architecture, and migrate the entire core database to a new management system with open source products or national/local brand software, with a view to meeting future needs and improving service performance.

**Scenario Analysis of the Social Benefits to be brought about by
the Proposed Project**

Regarding the social benefits in terms of time saving for vehicle licence and driving licence applicants, the Transport Department (TD) processed about 900 000 vehicle licence-related applications and about 700 000 driving licence-related applications in 2023, with a total of about 1.6 million cases. Comparing with processing applications in person at the Licensing Offices, applicants using the online service can complete the process without leaving home, thereby saving the application time (e.g. the waiting time for counter services).

2. The Vehicles and Drivers Licensing Integrated Data VI System will facilitate the implementation of various e-licensing initiatives by TD. Assuming that an additional 20% of applicants (i.e. about 320 000 cases per year¹) will switch to the online service instead of visiting the Licensing Offices for processing applications after the launch of various e-licensing initiatives, and that about one hour of application time can be saved by each person every time he/she uses the online service, it is estimated that about 320 000 hours can be saved for the community each year².

¹ 1.6 million cases per annum x 20% = 320 000 cases.

² For reference, one of the methods of benefit estimation is to project with the median wage. According to the latest announcement issued by the Census and Statistics Department, the median hourly wage for employees in Hong Kong is \$80. If more applicants switch to using the online service instead of visiting the Licensing Offices in person for processing applications, a total of 320 000 hours can be saved each year, i.e. the relevant benefit will be about \$25.6 million per annum (= 320 000 hours x median hourly wage of \$80).

Cost and Benefit Analysis of the Vehicles and Drivers Licensing Integrated Data System Infrastructure and Application Enhancement Project in the coming ten years

Item	Cash flow (\$'000)										
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	Total
1. Non-recurrent											
Expenditure	12,390	61,872	103,271	77,830	54,016	3,504	-	-	-	-	312,883
Staff Cost	2,697	2,945	6,828	4,375	3,101	-	-	-	-	-	19,946
Total Non-recurrent Expenditure	15,087	64,817	110,099	82,205	57,117	3,504	-	-	-	-	332,829
2. Recurrent											
Expenditure	-	-	-	16,221	32,882	37,157	37,157	37,157	37,157	37,157	234,888
Total Recurrent Expenditure	-	-	-	16,221	32,882	37,157	37,157	37,157	37,157	37,157	234,888
Total Non-recurrent and Recurrent Expenditure (A)	15,087	64,817	110,099	98,426	89,999	40,661	37,157	37,157	37,157	37,157	567,717
3. Cost Savings/Avoidance											
Non-recurrent Cost Avoidance ¹	-	-	-	21,463	-	-	-	-	-	-	21,463
Recurrent Cost Avoidance ²	-	-	-	1,858	5,573	5,573	5,573	5,573	5,573	5,573	35,296
Recurrent Realisable Savings ³	-	-	-	8,522	25,566	27,533	27,533	27,533	27,533	27,533	171,753
Recurrent Notional Savings ⁴	-	-	-	-	-	441	441	441	441	441	2,205
Total Savings (B)	-	-	-	31,843	31,139	33,547	33,547	33,547	33,547	33,547	230,717
Net Savings (C) = (B) - (A)	(15,087)	(64,817)	(110,099)	(66,583)	(58,860)	(7,114)	(3,610)	(3,610)	(3,610)	(3,610)	(337,000)
Net Cumulative Savings	(15,087)	(79,904)	(190,003)	(256,586)	(315,446)	(322,560)	(326,170)	(329,780)	(333,390)	(337,000)	

¹ This represents the amount of a one-off cost avoidance, which would otherwise be incurred for the essential upgrade to enhance the relevant facilities and system security equipment of the existing data centres for the existing Vehicles and Drivers Licensing Integrated Data (VALID) V System if the Transport Department (TD) cannot commence the proposed project.

² This represents the amount of an annual cost avoidance, which would otherwise be incurred as an additional recurrent expenditure for maintenance following the essential system enhancement and environmental facility upgrading for the existing VALID V System if TD cannot commence the proposed project.

³ This represents the amount of annual expenditure on maintenance and operation in relation to the existing VALID V System and the associated provisional systems. Upon the roll-out of the new system, TD will no longer be required to sustain the operation of the VALID V System, thus generating the realisable savings, which will offset part of the recurrent expenditure of the new VALID System.

⁴ This represents the annual staff costs involved in the associated provisional systems required to support the existing VALID V System. Upon the roll-out of the new system, TD will no longer be required to sustain the operation of the associated provisional systems, resulting in the fragmented reduction in manpower. The fragmented manpower saved will be redeployed to support other regular enhancement to relevant systems of TD, thus generating the notional savings.