

**Legislative Council Panel on Commerce and Industry**

**Enhancement of  
Government back-end computer system  
for processing cargo manifests**

**Purpose**

This paper invites Members to support a proposal to enhance the Government's back-end computer system for processing cargo manifests.

**Problem**

2. Certain important back-end processes for customs cargo clearance, trade statistics compilation and trade licensing control are performed either manually or through unconnected computer systems. To enhance efficiency, save manpower and improve effectiveness, it is necessary to automate these manual processes and to link up the unconnected systems.

**Proposal and Justification**

*Electronic submission of cargo manifests*

3. Subject to the Legislative Council's negative vetting of necessary subsidiary legislation, we will launch in April 2003 an electronic service (hereinafter referred to as the "EMAN" service) which enables cargo carriers<sup>1</sup> to submit manifests electronically to the Government via a private sector front-end service provider.

4. To support the EMAN service, we have developed a back-end computer system comprising gateway/database/application servers, client workstations and interfaces with the front-end service provider. This system ("EMAN system") has the following major functions –

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<sup>1</sup> With the exception of carriers of the road mode of transport. The electronic processing of 'road manifests' is being pursued as a separate project because of the special characteristics of the road mode of transport.

- (a) receives / delivers electronic messages (e.g. manifest data, queries and replies) to and from cargo carriers via the service provider;
- (b) automatically matches cargo manifests against transportation schedules of carriers collected through other systems to identify non-lodgment of manifests;
- (c) accesses data from the Restrained Textiles Export Licence system<sup>2</sup> (“RTEL system”) for on-screen manual checking of manifest and textile export licence data to identify textiles that have been exported without proper licences;
- (d) allows on-line access of manifest data by user departments through a central database for manual checking against information in other systems<sup>3</sup>;and
- (e) facilitates to some extent job assignment and production of management information reports.

*Proposal to enhance the EMAN system*

5. While the EMAN system enables carriers to submit cargo manifests electronically to the Government, a considerable number of back-end post-submission processes are still performed manually or through unconnected computer systems. **Annex I** sets out such back-end processes performed by the three major user departments, namely, Customs and Excise Department (“C&ED”), Census and Statistics Department (“C&SD”) and Trade and Industry Department (“TID”).

6. We have conducted a business process re-engineering study and a technical feasibility study with the aim of streamlining, automating and integrating the processes mentioned in paragraph 5 above. Based on the findings of these studies, we propose to enhance the EMAN system and to link it up with some 15 additional systems. Specifically, we will -

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<sup>2</sup> A government back-end computer system supporting electronic processing of applications for and issue of textile export licences subject to quotas.

<sup>3</sup> There is no electronic interface between the EMAN system and such other systems (e.g. the dutiable commodities system operated by Customs and Excise Department; the trade declaration system operated by Census and Statistics Department). Officers have to access information from different systems separately for manual cross-checking.

*For law enforcement by C&ED*

- (a) standardise the format of cargo examination reports for different modes of cargo transport, and integrate the information in a common database under the EMAN system to improve efficiency in risk profiling and intelligence analysis for customs clearance purposes;
- (b) build an interface with C&ED's intelligence system to facilitate better risk management;
- (c) establish links between the trader information database in the EMAN system and other systems (e.g. Inland Revenue Department's business registration system and telephone companies' public enquiry system) to streamline the process of verifying traders' information;
- (d) build interfaces with the dutiable commodities system, strategic commodities system and trade declaration system ("TDEC") to facilitate electronic referrals from the agencies concerned of cases requiring investigation by C&ED;
- (e) enable remote access by front-line staff to the central database of the EMAN system to facilitate law enforcement;

*For trade declaration processing and statistical analysis by C&SD*

- (f) build interfaces with the TDEC system to enable automatic matching of manifest and trade declaration data<sup>4</sup> for identifying discrepancies;
- (g) enhance the EMAN system to provide better support in following up cases of non-lodgement of trade declarations and manifests;
- (h) enhance the EMAN system to automate the capturing of transshipment cargo data and classification of all cargo data for compilation of statistics purposes.

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<sup>4</sup> C&SD receives about 16,500,000 trade declarations and 605,000 cargo manifests each year.

For licensing control by TID

- (i) build interfaces with other licensing / notification systems to automate matching of manifest and licences / notification data;
- (j) enhance the systems concerned to automate the process of verifying declared transshipments and cases exempted from licensing requirements;

For common use by C&ED, C&SD, and TID

- (k) enhance the EMAN system's capability in generating management information reports and in job assignment; and
- (l) provide additional facilities for communication between user departments and the traders and carriers concerned.

*Anticipated benefits*

7. The proposal will benefit both the Government and the business community, and the new system will be capable of future expansion.

8. The automation of the back-end processes described above will significantly raise departments' effectiveness and efficiency in carrying out their duties. The provision of online access to up-to-date manifest and other data by the three user departments will support better service delivery and decision making by both front-line and back-office staff. All these translate into higher productivity for the limited staff resources allocated to manifest-related duties.

9. In addition, the proposal will enable C&ED to adopt a targeted enforcement approach based on intelligence analysis, so that C&ED will focus on high-risk consignments and will create the least interruption to legitimate trade.

10. The proposed enhancement to the EMAN system will adopt a scalable design so that the system can be expanded further to support other projects, such as the electronic processing of manifests for cargo transported by road vehicles.

## Financial implications

### *Non-recurrent costs*

11. We estimate that the non-recurrent cost of the proposal is \$62.9 million (**Annex II**). This is mainly for the purchase of computer hardware and software, site preparation, installation of communication lines, and procurement of services and engagement of contract staff for system analysis, design and development, and user acceptance testing. The three user departments and Information Technology Services Department (“ITSD”) will absorb any non-recurrent staff requirements from their existing resources.

### *Recurrent costs*

12. We estimate that the proposal will entail a recurrent expenditure of \$8.3 million in 2005-06 and \$10.2 million a year from 2006-07 onwards (**Annex II**). This is mainly for the maintenance of computer hardware and software, rental of communication lines and facility management, and procurement of services and engagement of contract staff for technical management and ongoing support.

13. In addition, there will be a recurrent staff cost of about \$1.2 million a year from 2005-06 onwards for ongoing system administration and support. This is equivalent to 12 man-months of a Customs Inspector, 8.4 man-months of a Statistical Officer II, and 1.2 man-months of a Senior Systems Manager required by C&ED, C&SD and ITSD respectively. The departments concerned will absorb the respective requirement from their existing resources.

14. The additional recurrent cost will be offset by the realisable savings. Any excess of realisable savings over the recurrent expenditure requirement will be returned to centre.

### *Cost and benefit analysis*

15. The proposal will achieve an annual saving of \$23.2 million from 2007-08 onwards, comprising -

- (a) \$10.7 million in realisable savings, resulting mainly from the deletion of 29 posts<sup>5</sup> in C&ED, C&SD and TID; and

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<sup>5</sup> comprising one Customs Officer, 24 Assistant Clerical Officers and four Clerical Assistants.

- (b) \$12.5 million in notional savings, being mainly savings in staff time and efficiency gains spread across multiple locations, which will be used to meet additional work in other areas of the departments concerned.

In addition, the proposal should bring about an increase in revenue at \$0.8 million a year as a result of better detection of non-lodgement of trade declarations and import and export statements for dutiable commodities. Details of these benefits are set out at **Annexes III and IV**.

16. On the basis of the above projections, it is expected that the realisable savings in paragraph 15(a) would exceed the recurrent expenditure in paragraph 12. The proposal will start to accrue net benefit in 2005-06 and will break-even in 2010-11. A cost and benefit analysis is at **Annex V**.

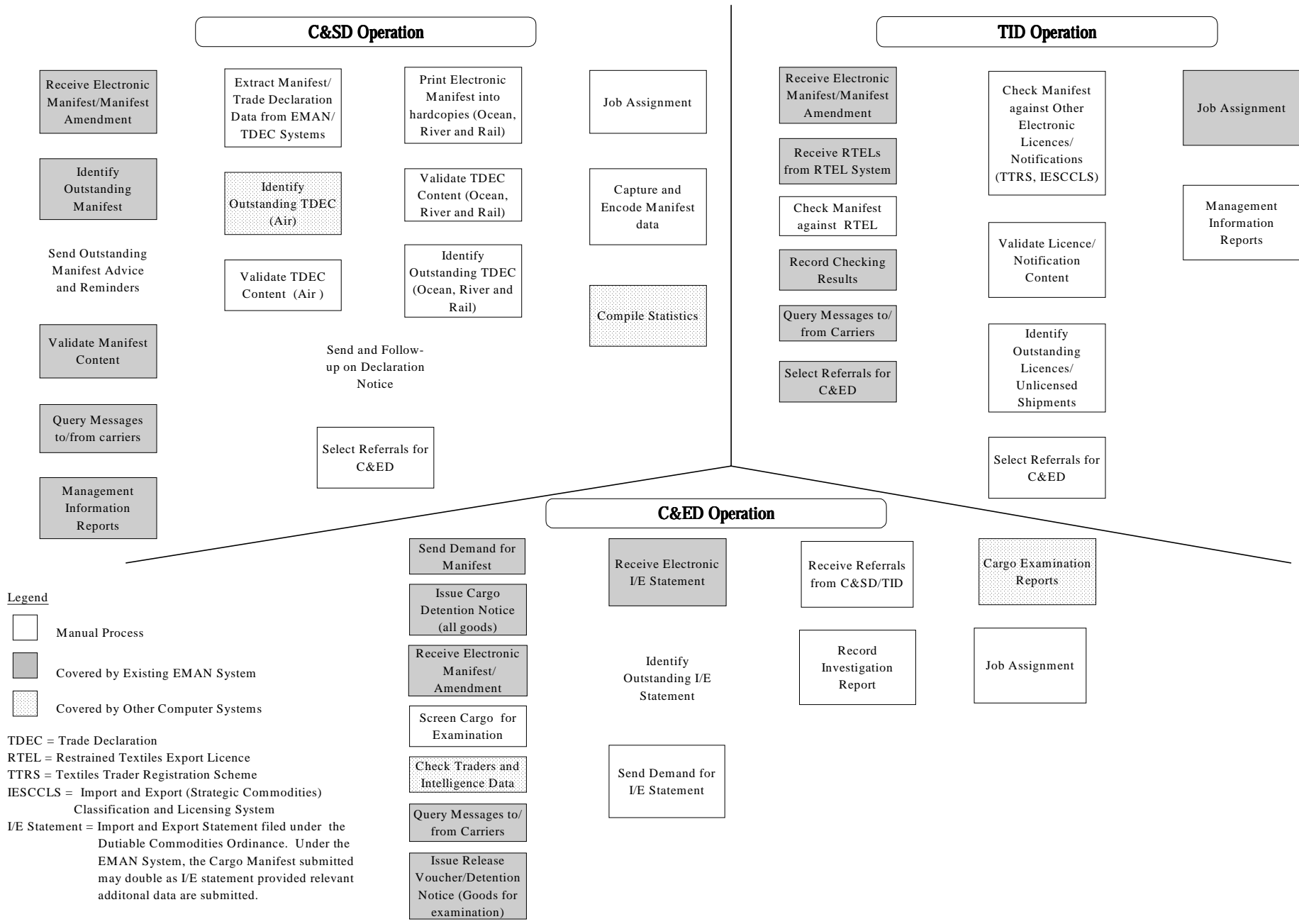
### **Way forward**

17. Subject to Members' views, we intend to put the proposal to Finance Committee for approval on 11 April 2003.

18. Project implementation will take approximately 25 months, including an 8-month team formation and tendering period. In line with our established policy, we will take this project forward by way of outsourcing.

### **Background**

19. Under the law, cargo carriers are required to submit cargo manifest for the purposes of customs cargo clearance, statistics compilation, and trade licensing control. At present, carriers send a copy of the paper manifest each to C&ED, C&SD and TID. In 1999, Finance Committee approved a commitment of \$110 million to develop the EMAN system. When the EMAN system becomes operational in April 2003, carriers may submit electronically the manifest to the Government only once, instead of delivering three sets of paper manifests to the three departments concerned.



**Existing back-end processes by C&ED, C&SD and TID  
 in relation to proposed EMAN system enhancement**

**Estimated expenditure for the  
enhancement of the EMAN system**

(I) Non-recurrent cost

	<u>2003-04</u> (\$'000)	<u>2004-05</u> (\$'000)	<u>2005-06</u> (\$'000)	<u>Total</u> (\$'000)
<u>Non-recurrent expenditure</u>				
(a) Computer hardware and software (Note 1)		25,666		25,666
(b) Implementation service (Note 2)	3,468	10,153	5,094	18,715
(c) External interface (Note 3)	1,019	3,459	1,006	5,484
(d) Site Preparation (Note 4)	49	2,622	65	2,736
(e) Communication service (Note 5)		1,051	480	1,531
(f) Training (Note 6)		126		126
(g) Consumables (Note 7)	247	740	244	1,231
(h) Contract staff (Note 8)	1,952	4,837	669	7,458
Sub-total	6,735	48,654	7,558	62,947
<u>Non-recurrent staff cost</u>				
(i) Staff cost (Note 9)	-	-	-	-
<b>Total</b>	<u>6,735</u>	<u>48,654</u>	<u>7,558</u>	<u>62,947</u>



**(II) Recurrent cost**

	<u>2005-06</u> (\$'000)	<u>2006-07</u> <u>onwards</u> (\$'000)
<b><u>Recurrent expenditure</u></b>		
(a) Hardware & software maintenance (Note 10)	2,542	2,542
(b) Ongoing support (Note 11)	2,684	3,579
(c) External interface (Note 12)	292	389
(d) Facility management (Note 13)	632	843
(e) Communication service (Note 14)	1,251	1,668
(f) Consumables (Note 15)	269	359
(g) Contract staff (Note 16)	640	812
Sub-total	8,310	10,192
<b><u>Recurrent staff cost</u></b>		
(h) Staff cost (Note 17)	1,196	1,239
Sub-total	1,196	1,239
<b>Total</b>	<b><u>9,506</u></b>	<b><u>11,431</u></b>

Note 1: The expenditure is for the acquisition of hardware and software. Hardware items consist of network equipment, servers, workstations and printers. Software items consist of system software for servers, workstations and database, and application software for the enhanced system.

Note 2: The expenditure is for the acquisition of services for system analysis and design, program development, system installation and integration, and system nursing.

Note 3: The expenditure is for the acquisition of services for developing external interfaces for the enhanced system.

Note 4: The expenditure is for the installation of conduits and power sockets, cabling work at data centres, external interface parties and offices of user

departments, as well as rental cost for facility management before the end of system nursing.

- Note 5: The expenditure is for the installation and upgrading of existing data communication lines between the EMAN system on one hand and external interface parties and offices of the user departments on the other.
- Note 6: The expenditure is for the acquisition of user training on how to use the enhanced system.
- Note 7: The expenditure is for the purchase of backup tapes, printer toners, printing paper and other stationery during system implementation.
- Note 8: The expenditure is for the engagement of contract staff by ITSD, C&ED, C&SD and TID to assist in tender preparation and evaluation, project monitoring and coordination, contract administration, system analysis and design, system implementation, user acceptance testing and system nursing.
- Note 9: The three user departments and ITSD will absorb any non-recurrent staff requirements from within their existing resources.
- Note 10: The expenditure is to cover the maintenance cost of computer hardware, and licence fee and maintenance cost for the system and database software.
- Note 11: The expenditure is for the provision of ongoing technical support to the enhanced system.
- Note 12: The expenditure is for the provision of ongoing technical support for the external interfaces.
- Note 13: The expenditure is for the provision of rental cost for a new facility management site for development equipment.
- Note 14: The expenditure is for the provision of rental cost for new and/or upgraded communication lines.
- Note 15: The expenditure is for the provision of extra cost for consumables such as backup tapes, printer toners and printing paper.
- Note 16: The expenditure is for the engagement of contract staff by C&ED and ITSD to support the smooth operation of the enhanced system.
- Note 17: The cost is for the provision of permanent staff by C&ED, C&SD and ITSD to provide ongoing operational or technical support to the enhanced

system. This comprises 12 man-months of a Customs Inspector, 8.4 man-months of a Statistical Officer II, and 1.2 man-months of a Senior Systems Manager. The cost will be absorbed by the three departments from within their resources.

**Anticipated benefits resulted from the  
enhancement of the EMAN system**

	<u>2005-06</u> (\$'000)	<u>2006-07</u> (\$'000)	<u>2007-08</u> <u>onwards</u> (\$'000)
<b><u>Realisable Savings</u></b>			
(a) C&ED (Note 1)	642	770	770
(b) C&SD (Note 1)	6,415	7,698	7,698
(c) TID (Note 1)	1,356	1,627	1,627
(d) ITSD (Note 1)	531	637	637
Sub-total	8,944	10,732	10,732
<b><u>Notional Savings</u></b>			
(f) C&ED (Note 2)	8,292	9,950	10,177
(g) C&SD (Note 2)	1,333	1,600	1,600
(h) TID (Note 2)	576	691	691
Sub-total	10,201	12,241	12,468
<b><u>Revenue</u></b> (Note 3)	658	790	790
<b>Total</b>	<b><u>19,803</u></b>	<b><u>23,763</u></b>	<b><u>23,990</u></b> (Note 4)

Note 1: The bulk of realisable savings are made up of a deletion of 29 posts (namely, 1 Customs Officer and 1 Assistant Clerical Officer by C&ED; 19 Assistant Clerical Officers and 4 Clerical Assistants by C&SD; and 4 Assistant Clerical Officers by TID), and savings in paper and printing cost, rental cost of communication lines, and maintenance cost for computer systems that will be retired as a result of the enhancement project.

- Note 2: The notional savings are mainly made up of manpower savings (and the associated accommodation cost) which cannot be realised as they are too fragmented and/or scattered among a number of units in the user departments. With the increase in overall efficiency, user departments will be able to take on additional workload without the need for extra staff and related provision. This type of cost avoidance is also counted towards notional savings.
- Note 3: This represents an increase in revenue as a result of an efficiency improvement in detecting a higher ratio of non-lodgement cases of TDEC and dutiable commodities permit.
- Note 4: Detailed calculations are set out in Annex IV.

**Detailed calculations showing the anticipated benefits of the enhancement project  
(from 2007-08 onwards)**

**(I) Notional savings**

(a) Improvement in operational efficiency as a result of enhancement in the following processes:

- collection of external interface data in electronic format, and subsequent validation and processing against manifest data;
- job assignment for follow-up actions, as well as efforts spent on manifest checking, paper record checking and searching, and collection/sorting/collation of manifest information;
- screening of cargo data, matching of manifests against TDECs, and licence checking; and
- generation of management and statistics reports.

For C&SD in particular, there will be savings in resources now spent on despatching TDECs and manifests, and the maintenance of in-house systems.

<u>Rank</u>	<u>Staff savings</u> (man-month)	<u>Monthly staff cost at 2002/03 level</u> (\$)	<u>Annual savings</u> (\$)
<i>C&amp;ED*</i>			
Senior Inspector	8.46	97,371.00	823,758.66
Inspector	9.60	65,474.00	628,550.40
Senior Customs Officer	31.68	40,555.00	1,284,782.40
Customs Officer	63.12	26,314.00	1,660,939.68
Senior Trade Controls Officer	3.84	72,448.00	278,200.32
Trade Controls Officer	21.55	53,592.00	1,154,907.60
Assistant Trade Controls Officer	5.52	31,720.00	175,094.40
Executive Officer II	0.24	35,500.00	8,520.00
Clerical Officer	1.20	39,246.00	47,095.20
Assistant Clerical Officer	22.29	28,705.00	639,834.45
Clerical Assistant	7.68	20,647.00	158,568.96
Workman II	1.20	13,576.00	16,291.20
	176.38		6,876,543.27
		<i>SAY (\$000)</i>	6,877

*\* scattered in 12 different formations*

<u>Rank</u>	<u>Staff savings</u> (man-month)	<u>Monthly staff cost at 2002/03 level</u> (\$)	<u>Annual savings</u> (\$)
<i>C&amp;SD**</i>			
Analyst/Programmer I	3.00	64,057.00	192,171.00
Analyst/Programmer II	3.00	43,172.00	129,516.00
Clerical Officer	1.44	39,246.00	56,514.24
Assistant Clerical Officer	14.64	28,705.00	420,241.20
Clerical Assistant	3.24	20,647.00	66,896.28
Workman II	1.38	13,576.00	18,734.88
	<u>26.70</u>		<u>884,073.60</u>
		<i>SAY (\$000)</i>	<i>884</i>
<i>TID</i>			
Senior Clerical Officer	1.20	52,532.00	63,038.40
Clerical Officer	4.08	39,246.00	160,123.68
Assistant Clerical Officer	3.24	28,705.00	93,004.20
Clerical Assistant	0.48	20,647.00	9,910.56
	<u>9.00</u>		<u>326,076.84</u>
		<i>SAY (\$000)</i>	<i>326</i>
		<i>SUB-TOTAL (\$000)</i>	<i>8,087</i>

(b) Saving in accommodation cost resulting from the deletion of posts and savings in storage space:

	<u>No. of posts</u>	<u>Area saved</u> (square meter)	<u>Annual Accommodation cost</u> (\$ per square meter)	<u>Annual savings</u> (\$)
<i>C&amp;ED</i>				
Customs Officer	1	2.00	2,808.00	5,616.00
Assistant Clerical Officer	1	4.40	2,628.00	11,563.20
Storage space (Kowloon Rly Unit)		3.00	3,340.20	10,020.60
				<u>27,199.80</u>
			<i>SAY (\$000)</i>	<i>27</i>
<i>C&amp;SD</i>				
Assistant Clerical Officer	19	4.40	3,948.00	330,052.80
Clerical Assistant	4	4.10	3,948.00	64,747.20
Storage space (Wanchai Tower)		38.10	3,948.00	150,418.80
Storage space (Tuen Mun)		17.90	2,808.00	50,263.20
				<u>595,482.00</u>
			<i>SAY (\$000)</i>	<i>595</i>
<i>TID</i>				
Assistant Clerical Officer	4	4.40	3,648.00	64,204.80
				<u>64,204.80</u>
			<i>SAY (\$000)</i>	<i>64</i>
			<i>SUB-TOTAL (\$000)</i>	<i>686</i>

(c) Saving in maintenance cost for computer hardware and software:

	<u>Annual savings</u> (\$)
Maintenance cost for the hardware and software which support three C&SD in-house systems along with other systems	121,389.00
<i>SAY (\$000)</i>	<i>121</i>

(d) Staff cost avoidance rendered possible by enhancement in the following processes:

- screening of cargo for detention of vessel and cargo examination;
- investigation of outstanding manifests/TDECs/declaration notices; and
- checking of transshipment exempted from licensing requirements.

<u>Rank</u>	<u>Staff savings</u> (man-month)	<u>Monthly staff cost at 2002/03 level</u> (\$)	<u>Annual savings</u> (\$)
<i>C&amp;ED***</i>			
Assistant Superintendent	3.06	111,651.00	341,652.06
Senior Inspector	23.22	97,371.00	2,260,954.62
Inspector	5.40	65,474.00	353,559.60
Senior Customs Officer	2.40	40,555.00	97,332.00
Customs Officer	4.80	26,314.00	126,307.20
Trade Controls Officer	0.29	53,592.00	15,541.68
Assistant Trade Controls Officer	0.48	31,720.00	15,225.60
	<u>39.65</u>		<u>3,210,572.76</u>
<i>*** scattered in 3 different formations</i>		<i>SAY (\$000)</i>	<i>3,211</i>
<i>TID</i>			
Assistant Trade Officer I	2.40	57,381.00	137,714.40
Senior Clerical Officer	1.20	52,532.00	63,038.40
Clerical Officer	1.92	39,246.00	75,352.32
Clerical Assistant	0.72	20,647.00	14,865.84
	<u>6.24</u>		<u>290,970.96</u>
		<i>SAY (\$000)</i>	<i>291</i>
		<i>SUB-TOTAL (\$000)</i>	<i>3,502</i>



(e) Cost avoidance in accommodation cost:

	<u>Staff savings</u> (man-month)	<u>Area saved</u> (square meter)	<u>Annual Accommodation cost</u> (\$ per square meter)	<u>Annual savings</u> (\$)
<i>C&amp;ED</i>				
Assistant Superintendent	3.06	8.10	2,808.00	5,799.92
Senior Inspector	23.22	8.10	2,808.00	44,011.19
Inspector	5.4	6.90	2,808.00	8,718.84
Senior Customs Officer	2.4	4.10	1,848.00	1,515.36
Customs Officer	4.8	2.00	1,848.00	1,478.40
Trade Controls Officer	0.29	5.80	2,148.00	301.08
Assistant Trade Controls Officer	0.48	4.10	2,148.00	352.27
				<hr/>
				62,177.06
			<i>SAY (\$000)</i>	<i>62</i>
<i>TID</i>				
Assistant Trade Officer I	2.4	5.80	3,648.00	4,231.68
Senior Clerical Officer	1.2	5.80	3,648.00	2,115.84
Clerical Officer	1.92	4.40	3,648.00	2,568.19
Clerical Assistant	0.72	4.10	3,648.00	897.41
				<hr/>
				9,813.12
			<i>SAY (\$000)</i>	<i>10</i>
			<i>SUB-TOTAL (\$000)</i>	<i>72</i>
			<i>TOTAL (\$000)</i>	<i>12,468</i>

## (II) Realisable savings

### (a) Deletion of post due to enhancement in the following processes:

- appointment booking with importers for cargo examination and printing of partially completed cargo examination report;
- investigation on outstanding cases of manifests/TDECs;
- automatic matching of manifests against TDECs;
- automatic coding of cargo items for compilation of statistics; and
- manifest checking against licence/notification/supporting document.

<u>Rank</u>	<u>No. of posts</u>	<u>Monthly staff cost at 2002/03 level (\$)</u>	<u>Annual savings (\$)</u>
<i>C&amp;ED</i>			
Customs Officer	1	26,314.00	315,768.00
Assistant Clerical Officer	1	28,705.00	344,460.00
	<u>2</u>		<u>660,228.00</u>
		<i>SAY (\$000)</i>	<i>660</i>
<i>C&amp;SD</i>			
Assistant Clerical Officer	19	28,705.00	6,544,740.00
Clerical Assistant	4	20,647.00	991,056.00
	<u>23</u>		<u>7,535,796.00</u>
		<i>SAY (\$000)</i>	<i>7,536</i>
<i>TID</i>			
Assistant Clerical Officer	4	28,705.00	1,377,840.00
	<u>4</u>		<u>1,377,840.00</u>
		<i>SAY (\$000)</i>	<i>1,378</i>
		<i>SUB-TOTAL (\$000)</i>	<i>9,574</i>
(b) <u>Reduction in paper and printing cost:</u>			773,884.00
		<i>SAY (\$000)</i>	<i>774</i>
(c) <u>Reduction in maintenance cost for three C&amp;SD in-house systems to be replaced by the EMAN system:</u>			9,982.00
		<i>SAY (\$000)</i>	<i>10</i>
(d) <u>Saving in the rental of existing communication lines:</u>			374,160.00
		<i>SAY (\$000)</i>	<i>374</i>
		<b><i>TOTAL (\$000)</i></b>	<b><i>10,732</i></b>

**(III) Increase in revenue as a result of an efficiency improvement in detecting a higher ratio of non-lodgement cases of TDEC and import and export statement for dutiable commodities**

	Estimated no. of <u>cases</u>	Estimated <u>unit price</u> (\$)	Annual <u>savings</u> (\$)
(a) Dutiable commodities	5	13,759.00	68,795.00
(b) TDECs	7,602	94.89	<u>721,353.78</u>
			790,148.78
		<b>TOTAL ('\$000)</b>	<b>790</b>

**Cost-Benefit Analysis for the  
Enhancement of the EMAN System  
(at 2002-2003 price level)**

	2003- 2004 (\$'000)	2004- 2005 (\$'000)	2005- 2006 (\$'000)	2006- 2007 (\$'000)	2007- 2008 (\$'000)	2008- 2009 (\$'000)	2009- 2010 (\$'000)	2010- 2011 (\$'000)
<b>Cost</b>								
<b>Non-recurrent</b>								
- expenditure	6,735	48,654	7,558	-	-	-	-	-
- staff cost	-	-	-	-	-	-	-	-
<b>Sub-total</b>	<b>6,735</b>	<b>48,654</b>	<b>7,558</b>	-	-	-	-	-
<b>Recurrent</b>								
- expenditure	-	-	8,310	10,192	10,192	10,192	10,192	10,192
- staff cost	-	-	1,196	1,239	1,239	1,239	1,239	1,239
<b>Sub-total</b>	-	-	<b>9,506</b>	<b>11,431</b>	<b>11,431</b>	<b>11,431</b>	<b>11,431</b>	<b>11,431</b>
<b>Total cost</b>	<b>6,735</b>	<b>48,654</b>	<b>17,064</b>	<b>11,431</b>	<b>11,431</b>	<b>11,431</b>	<b>11,431</b>	<b>11,431</b>
<b>Benefit</b>								
- realisable saving	-	-	8,944	10,732	10,732	10,732	10,732	10,732
- notional saving	-	-	10,201	12,241	12,468	12,468	12,468	12,468
- revenue	-	-	658	790	790	790	790	790
<b>Total benefit</b>	-	-	<b>19,803</b>	<b>23,763</b>	<b>23,990</b>	<b>23,990</b>	<b>23,990</b>	<b>23,990</b>
<b>Net benefit</b>	<b>(6,735)</b>	<b>(48,654)</b>	<b>2,739</b>	<b>12,332</b>	<b>12,559</b>	<b>12,559</b>	<b>12,559</b>	<b>12,559</b>
<b>Cumulative benefit</b>	<b>(6,735)</b>	<b>(55,389)</b>	<b>(52,650)</b>	<b>(40,318)</b>	<b>(27,759)</b>	<b>(15,200)</b>	<b>(2,641)</b>	<b>9,918</b>