PROCUREMENT AND INVENTORY MANAGEMENT OF ICT PRODUCTS AND SERVICES

Executive Summary

1. The Government leverages on information and communications technology (ICT) to improve the operational efficiency of government bureaux and departments (B/Ds) as well as the quality and cost-effectiveness of public services. The responsibility for overseeing the use of ICT in the Government rests with the Government Chief Information Officer, who heads the Office of the Government Chief Information Officer (OGCIO). In the ten-year period from 2005-06 to 2014-15, the total amount of the Government's ICT expenditure increased by 48.9% from $2,805 million to $4,176 million.

2. The Audit Commission (Audit) has recently conducted a review of the Government's procurement and inventory management of ICT products and services. The review also included the provision of mobile applications (apps) by B/Ds. Audit selected: (a) four government departments (i.e. the OGCIO, the Customs and Excise Department (C&ED), the Environmental Protection Department (EPD) and the Highways Department (HyD)) for review of procurement and inventory management of ICT products and services; and (b) another four departments (i.e. the Department of Health, the Fire Services Department, the Leisure and Cultural Services Department and the Water Supplies Department) for review of the provision of apps.

Procurement of ICT products and services

3. *E-Procurement programme.* In December 2013, the full function of e-Procurement, which was developed by the OGCIO, was ready for use by B/Ds to procure stores and non-construction services (including ICT products and services). Up to 31 October 2015, $80.1 million had been spent for the development and implementation of e-Procurement. Up to late December 2015, however, only 10 of the some 70 B/Ds of the Government had implemented the full function of e-Procurement (paras. 2.4, 2.8 and 2.10).

4.   ***Procurement practices.*** For each of the four departments (see para. 2(a)), Audit examined 20 procurement cases conducted in the period from 2012-13 to 2014-15. Audit noted that: (a) instead of consolidating purchases to achieve better economies of scale, the C&ED and the EPD divided procurement of $2.1 million and $4.6 million respectively into two and six separate purchases; and (b) in a procurement, in order to fulfil the procurement requirements stipulated by the OGCIO and the Government Logistics Department (GLD) (e.g. the quoted values of trade-in items should not be lower than the approved minimum values), the HyD ended up paying more for the goods it procured (paras. 2.3 and 2.17 to 2.21).

5.   ***Performance information and replacement strategy.*** The OGCIO publishes on its website the Government's annual expenditure on ICT to demonstrate the extent to which the Government is committed to and making progress on e-Government services. Audit found that there were large discrepancies between the ICT expenditure of some B/Ds included in the expenditure published by the OGCIO and the actual ICT expenditure of these B/Ds. For example, the HyD's actual ICT expenditure had been understated by $23.8 million (74%). Audit also noted that of the four departments, only the OGCIO had planned and replaced its obsolete computers and related software on a continual basis. The OGCIO could consider issuing guidelines to B/Ds to help them draw up replacement strategies for their ICT products (paras. 2.28, 2.29, 2.35 and 2.36).

Control of ICT inventories

6.   ***ICT inventory control.*** In the period from May to October 2015, Audit conducted a total of 12 stocktakes at selected operational units of the four departments. Audit found that: (a) up to 30 November 2015, 107 (11%) of 1,009 selected ICT inventory items had not been located by the departments concerned. The cost of these missing items amounted to some $451,000; (b) 32 (30%) of the 107 missing items were embedded with data storage devices (e.g. personal computers), the loss of which could be a breach of security according to the Security Regulations; and (c) the ICT inventory records of the C&ED, the EPD and the HyD were not properly kept. For example, 1,840 items were recorded as being kept by the Departments' Information Technology Management Units, but 1,523 (83%) of them had in fact been traded-in or were kept by other units (paras. 3.4 to 3.6, 3.9 and 3.11).

7.   ***Computerised inventory control systems.***   Of the four departments, the HyD was the only department that had not computerised its inventory control system. This could be a reason why many of the HyD's inventory items were found missing and a long time (up to six months after Audit's stocktakes) was taken to locate some of the items.   Audit reviewed the computerised inventory control systems of the C&ED, the EPD and the OGCIO and found that there was room for improvement.   For example, while the C&ED had a computerised inventory control system, it still largely relied on its manual system for inventory control purposes. Furthermore, there were large discrepancies between the inventory records of the C&ED's computerised inventory control system and those of its manual system (paras. 3.5(c), 3.7 and 3.23).

Disposal of ICT products

8.   ***ICT disposal strategies.***   Keeping ICT products in storage pending disposal is costly because they quickly lose value and unjustifiably occupy valuable office space.   A disposal strategy, covering such matters as conducting ageing analysis of ICT inventories and periodic reviews of their condition and serviceability, would help the management dispose of obsolete inventories in a timely and systematic manner, thereby generating higher residual values on disposal.   For each of the four departments, Audit examined 20 disposal cases conducted in the period from 2012-13 to 2014-15. Audit found that in general the departments did not have in place ICT disposal strategies to facilitate timely disposal decisions.   For example, some obsolete ICT products with a cost of some $3.8 million could have been disposed of by the OGCIO in early 2008 were not brought up for disposal until 2015 (paras. 4.5 and 4.6).

9.   ***Donation of ICT products.***   In September 2009, the EPD started a scheme to donate old ICT products for green and charitable purposes.   Up to 30 September 2015, the EPD had made 65 donations, involving a total of some 3,600 items of ICT products with a cost of $10.7 million.   Audit noted that: (a) some 1,300 items of unserviceable ICT products should have been sold to the GLD disposal term contractors in accordance with the Stores and Procurement Regulations (SPRs); and (b) all the donations were only made to one non-governmental organisation (paras. 4.14 and 4.15).

Provision of apps

10.   Government apps have been developed at a fast rate.   As at 31 August 2015, 127 apps were launched.   Audit examined the apps of four departments (see para. 2(b)).   Audit found that: (a) the mobile device features of some apps were limited and were virtually duplications of the websites of B/Ds; (b) 15 apps had not been listed on the OGCIO's "GovHK Apps" and the GovHK website, which are centralised platforms for enabling the public to be aware of the availability of government apps; and (c) as at 31 August 2015, of the 31 apps developed for one-off events, 23 had already been decommissioned.   The total development cost of the decommissioned apps amounted to some $2.6 million.   The number of downloads of some apps for one-off events had been on the low side (paras. 5.6 to 5.8, 5.13 and 5.14).

Audit recommendations

11.   **Audit recommendations are made in the respective sections of this Audit Report.   Only the key ones are highlighted in this Executive Summary. Audit has *recommended* that the Government Chief Information Officer should:**

Procurement of ICT products and services

(a)   **identify the reasons why the majority of B/Ds had not implemented the full function of e-Procurement and take measures to attract more B/Ds to implement the full function (para. 2.15(a) and (b));**

(b)   **in collaboration with the Director of Government Logistics:**

(i)   **remind B/Ds periodically the need to comply with the procurement requirements (para. 2.23(a)); and**

(ii)   **conduct a review of the procurement requirements to ascertain whether certain requirements (e.g. the "minimum trade-in value requirement") need to be revised to provide more flexibility in conducting procurements (para. 2.23(b));**

(c)   take measures to enhance the accuracy of the Government's ICT expenditure reported on the OGCIO's website (para. 2.37(a));

(d)   consider issuing guidelines to B/Ds to facilitate their drawing up of replacement strategies for ICT products (para. 2.37(c));

Provision of apps

(e)   take measures to ensure the completeness of government apps listed on "GovHK Apps" and the GovHK website as far as possible (para. 5.19(a));

(f)   promulgate the criteria for justifying the development of apps for one-off events (para. 5.19(b)); and

(g)   in the light of the audit recommendations, promulgate guidelines on the provision of government apps (para. 5.27(a)).

12.   **Audit has also *recommended* that:**

Procurement of ICT products and services

(a)   the Commissioner of Customs and Excise and the Director of Environmental Protection should take measures to ensure that in procuring ICT products and services, the procurement requirements are observed (para. 2.22);

Control of ICT inventories

(b)   the Commissioner of Customs and Excise, the Director of Environmental Protection, the Director of Highways and the Government Chief Information Officer should:

(i)   for those ICT inventory items which could not be located, institute the procedures (e.g. write-off) stipulated in the Financial Circular No. 7/2003 and SPRs (para. 3.13(b)); and

(ii)   **for those lost ICT inventory items which have embedded data storage devices, take remedial measures as stipulated in the Security Regulations (para. 3.13(c));**

(c)   **the Commissioner of Customs and Excise, the Director of Environmental Protection and the Director of Highways should take measures to ensure that the inventory records are properly kept and updated (para. 3.14);**

(d)   **the Director of Highways should establish a computerised inventory control system to improve the management of the HyD's inventories (para. 3.24);**

(e)   **the Commissioner of Customs and Excise, the Director of Environmental Protection and the Government Chief Information Officer should enhance their computerised inventory control systems (paras. 3.25 to 3.27);**

(f)   **the Director of Government Logistics should:**

    (i)   **take measures to regularly remind B/Ds of the need to maintain inventory records up-to-date (para. 3.16); and**

    (ii)   **promote the use of computerised inventory control system by B/Ds for more timely recording and better control of inventories (para. 3.28(b));**

Disposal of ICT products

(g)   **the Commissioner of Customs and Excise, the Director of Environmental Protection, the Director of Highways and the Government Chief Information Officer should conduct a review of their ICT inventories to identify inventory items that are due for disposal, and dispose of the obsolete inventory items in a timely and systematic manner (para. 4.7(a) and (b));**

(h)   **the Director of Environmental Protection should:**

        (i)   **take measures to ensure compliance with the SPRs in future donations of ICT products (para. 4.16(a)); and**

        (ii)   **explore whether there are other non-governmental organisations in need of donations of ICT products and consider donating ICT products to them in future donations (para. 4.16(b));**

(i)   **the Director of Government Logistics should:**

        (i)   **promote the formulation of ICT disposal strategies by B/Ds (para. 4.8(a)); and**

        (ii)   **in consultation with the Secretary for Financial Services and the Treasury, explore the possibility of improving the procedures stipulated in the SPRs to facilitate the donation of ICT products (para. 4.17); and**

Provision of apps

(j)   **the Director of Fire Services, the Director of Health, the Director of Leisure and Cultural Services and the Director of Water Supplies should:**

        (i)   **regularly review the contents of their apps to ascertain whether the contents could be enhanced to attract more people to use the apps (para. 5.15(a)); and**

        (ii)   **consider decommissioning those apps that eventually could not meet the original objectives of developing them (para. 5.15(d)).**

Response from the Government

13.   The Government agrees with the audit recommendations.