

立法會
Legislative Council

LC Paper No. CB(4)201/14-15(04)

Ref. : CB4/PL/ITB

Panel on Information Technology and Broadcasting

Meeting on 8 December 2014

Background brief on building a government data centre complex

Purpose

This paper provides background information on building a government data centre complex in Hong Kong and a summary of views and concerns expressed by Members in previous discussions.

Background

2. Data centres are critical infrastructure to support all economic sectors of Hong Kong. They help entrench Hong Kong's overall competitiveness as an international financial and logistics centre by supporting high value-adding economic activities. Data centres also provide the catalyst for the development of new content and applications, and are fundamental to the overall growth of the Information and Communications Technology ("ICT") industry. To sustain and enhance Hong Kong's competitiveness in the region, the Government fully supports the development of data centres as the backbone to Hong Kong's economic growth, in particular, the growth of high-frequency stock trading, e-commerce and cloud computing services serving both international and Mainland users in addition to meeting local demand. This policy is integral to the Digital 21 Strategy.

3. Since 2009, the Government has implemented a number of facilitation measures for the development of data centres. In July 2011, the Government established a Data Centre Facilitation Unit to provide information and one-stop support to parties interested in setting up data centres in Hong Kong. It has also introduced a time-limited scheme (until 31 March 2016) to encourage the development of data centres in existing industrial buildings and industrial lots. Under the scheme, waiver fees for changing part(s) of

eligible industrial buildings into data centre use would be exempted, and the premium for lease modification of industrial lots for development of high-tier data centres¹ would be assessed on the basis of actual development intensity and high-tier data centre use. The Government has also set aside about two hectares of land in Tseung Kwan O for high-tier data centre use.

4. In 2011, the Government commissioned a consultancy study to examine the situation and future needs of data centres in Government bureaux/departments ("B/Ds"), with a view to formulating a blueprint for the long-term development and arrangements of data centre services in the Government. The study aimed to come up with the most optimal arrangements of data centre services in the Government, including outsourcing, adoption of cloud computing, building new government data centres, and consolidation of some of the 25 existing data centres managed by different B/Ds. The Government would also examine the case of building a Next Generation Data Centre to address the long-term requirements of hosting services within Government. To this end, the Government would formulate a blueprint of data centre service arrangements catering for growth and more efficient use of energy to support green IT.

Previous discussions

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5. At the meeting of the Panel on Information Technology and Broadcasting ("the Panel") on 10 June 2013, members noted that the Office of the Government Chief Information Officer ("OGCIO") had completed the consultancy study on the long term arrangement of data centre services in Government B/Ds. According to OGCIO, one major recommendation of the study was to establish a new and consolidated data centre complex to address the long-term requirements of hosting services within the Government, with a view to making government data centre and the associated computing infrastructure more agile, efficient, robust, secure, cost-effective and adaptable to changes in business needs and latest technology advancement. The consolidated complex could also achieve better energy-efficiency and greener operation to reduce carbon footprints and environmental impact on data centre operations. The Government was conducting a technical feasibility study and formulating the requirement specification of the complex, with a view to ascertaining the resources required to take forward the planning and implementation of the complex.

¹ High-tier data centres refer to those data centres of Tier 3+ and Tier 4 based on the criteria of the Uptime Institute. They have very stringent requirements such as serviceability, availability and security.

6. At the Panel meetings on 8 July and 11 November 2013, some members urged the Government to formulate a set of "Green Data Centre Standards" for data centres in Hong Kong and adopt green ICT practices in the Government. The Administration advised that the OGCIO had promulgated the "Green Data Centre Practices" for reference and adoption by B/Ds in their data centre management. To promote energy-saving practices in the industry, the OGCIO had made available in 2012 the "Green Data Centre Practices" for reference by the industry through the data centre thematic portal. The Administration was in the process of consolidating six government data centres with a view to saving power consumption and implementing other green data facilities.

7. At the Panel meetings on 28 January and 9 June 2014, members noted that the Administration had completed the relevant technical feasibility study for the consolidated data centre complex which was expected to commence operation in 2019. Noting that the OGCIO was working with the Architectural Services Department on the preparatory works for building the new complex and the Administration would brief the Panel on the funding requirement before seeking funding support from the Finance Committee ("FC") to proceed with the pre-construction consultancy work, members urged the Administration to expedite the migration of the new government data centre complex and provide details of the migration arrangement.

Finance Committee

8. At the special FC meeting on 2 April 2014 to examine the Estimates of Expenditure in 2014-2015, Hon Charles Peter MOK raised questions, among others, on the expenditure incurred by B/Ds on data centre services and data processing in the past three years, whether the Government had any plan to expedite the completion of the new government data centre complex, the progress of the preliminary work for the second new government data centre complex, and the timetable, manpower and estimated expenditure for the project.

9. The Administration advised that the expenditures incurred by B/Ds on data centre services and data processing in the past three years were \$61 million, \$54 million and \$63 million respectively. The Administration would consider various options in order to enable the early operation of the new government data centre complex in a cost-effective manner. In light of the rapid development of e-government services in recent years, the Administration would continue to discuss with the relevant B/Ds on the data centre services strategy, with a view to exploring and formulating a concrete development plan of the second government data centre complex for shared use by B/Ds.

Latest position

10. The Administration will brief the Panel on 8 December 2014 on the Administration's plan to build a new data centre complex to support the long-term development of data centre services in Government B/Ds and the funding requirement to proceed with the pre-construction consultancy work.

Relevant papers

11. A list of the relevant papers with their hyperlinks is at:

<http://www.legco.gov.hk/yr10-11/english/panels/itb/papers/itb0711cb1-2646-3-e.pdf>

<http://www.legco.gov.hk/yr11-12/english/panels/itb/papers/itb0611cb1-2064-5-e.pdf>

<http://www.legco.gov.hk/yr11-12/english/panels/itb/papers/itb0710cb1-2305-3-e.pdf>

<http://www.legco.gov.hk/yr12-13/english/panels/itb/papers/itb0610cb4-711-6-e.pdf>

<http://www.legco.gov.hk/yr13-14/english/panels/itb/papers/itb1209cb4-196-7-e.pdf>

<http://www.legco.gov.hk/yr13-14/english/panels/itb/minutes/itb20140128.pdf>

<http://www.legco.gov.hk/yr13-14/english/panels/itb/papers/itb0609cb4-726-3-e.pdf>

<http://www.legco.gov.hk/yr13-14/english/panels/itb/papers/itb0609cb4-726-4-e.pdf>

Council Business Division 4
Legislative Council Secretariat
2 December 2014