THE HONG KONG HOUSING AUTHORITY

Memorandum for The Finance Committee

Tackling The Year 2000 Challenge

PURPOSE

The purpose of this paper is to give Members an update of our current progress in addressing the *Year 2000 Challenge* in Housing Department.

BACKGROUND

2.		The *Year 2000 Challenge* stems from a common practice of using only two digits[1] to represent and operate dates in computer programs. Computer programs so written will very likely fail upon the millennium date change from Year 1999 to 2000.	This paper provides a further update, subsequent to Paper No. FC 23/98 and Paper No. FC 54/98, on the progress of our rectification work.

3.		Top management has accorded high priority to address the *Year 2000 Challenge.*	The Housing Department Computer Committee (HDCC), which has assumed the role of overseeing the Year 2000 exercise, is now meeting monthly to check the progress of work.	A corporate and systematic approach is being adopted.	A master action programme has been developed to steer and monitor the exercise.	The target is to complete rectification of all critical information technology (IT) and embedded systems by June 1999.

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[1] Only the year digits are used (i.e., "97" to represent 1997).

PRESENT SITUATION

4.   The following paragraphs give a summary of our current progress in tackling the Year 2000 issues -

    4.1   *IT Application Systems*

        We have engaged in June 1998 a service provider, Platinum Technology Ltd., for the checking and rectification of our IT application systems. The Productivity Council, acting as an independent quality assurance party, is working closely with us to ensure a good standard of outputs.

        There are 69 such systems that need checking/rectification. We have already completed work on 44 of them and target to complete the remaining ones progressively by June this year.

        While we are on schedule in the rectification exercise, we did experience some delay at the beginning of the project. It took us some time to set up proper procedures and controls to ensure consistent implementation of the rectification work.

        Between now and end of the year, there may be a need to implement urgent enhancements to some of the rectified systems. To ensure that the new enhancements do not corrupt the Year 2000 compliance status of the rectified systems, we will introduce an appropriate "configuration management" methodology to keep track of the changes.

    4.2   *Personal Computers (PCs)*

        We have already completed checking the date-sensitive device ("BIOS") of about 5,900 out of 7,400 departmental PCs and PC servers. For those we have checked, about half of the BIOS are Year 2000 compliant and about 89% of the remaining ones will be functional by putting in a "BIOS" fixing software.

        Owing to the large quantity of PCs, there have been some difficulties in locating and checking each of them. We are now launching an exercise to visit all estates and offices to locate

the remaining PCs. At the same time, we are marking the PCs' compliance status with labels and installing BIOS fixing software. In parallel to this exercise, we will upgrade or replace those non-compliant PCs identified. We target to complete the exercise by April this year.

4.3 _End-user Developed Computer Systems_

We have confirmed the number and business nature of all end-user developed computer systems in the Department. While there are 95 such systems, only 22 are business-critical and we have to date rectified 8 of them. We will complete rectification of the remaining critical ones by June this year. For the non-business-critical systems, we target to complete their rectification in batches before the end of this year.

4.4 _Embedded Equipment and Devices_

We have compiled an inventory list of embedded equipment and devices in the Department. There are 998 critical and 1573 non-critical systems identified in the existing estates with 13 and 180 of them potentially sensitive to the millennium date change respectively. Rectification has been completed on 2 critical and 55 non-critical systems. We target to complete rectification of all critical embedded systems by June this year. In addition, we will ensure all embedded systems within newly constructed estates are Year 2000 compliant.

Similar to the start-up of the rectification exercise for IT systems mentioned in para. 4.1, the setting up of a framework to implement the exercise for embedded system took time because of the need to ensure consistency in understanding of the approach and methodology in conducting the checking/rectification work within the Department among the different units. We have also engaged a consulting firm to conduct verification tests at five selected sites. The test results, to be available in February, will provide added verification on the results of our own exercise in tackling the embedded systems.

For HOS property, we have already written to the management agencies concerned requesting them to check the embedded systems. Similarly for PSPS property, we will also alert and inform the management agencies concerned to take necessary actions to address the Year 2000 issues.

4.5 *PABX and Phone Systems*

We have been liaising with Office of the Telecommunications Authority (OFTA) to check the compliance status of our various PABX and phone systems. OFTA has confirmed that all the systems were Year 2000 ready except our Headquarters' PABX system. We are now in the process of upgrading the Headquarters' PABX system for completion by June this year.

4.6 *Business Partners*

We have been working closely with our business partners, including service suppliers and providers (e.g., contractors, private management agents, banks) to ensure they are also taking actions to check and rectify date-sensitive items which may affect the services provided to us. This has been done through the conduct of briefings and seminars, as well as correspondences seeking confirmation of their compliance status. In assessing the responses, regard is taken to the criticality of the business partners to our business and consequently the need for further verification of their compliance status.

4.7 *Awareness Programme*

We have arranged seminars for, and issued newsletters to, our staff members to increase their awareness and understanding of the Year 2000 issues, what we are doing to address the issues, and how they can help. The activities are being conducted in an on-going manner.

4.8   *Contingency Plans*

In accordance with our Year 2000 Compliance Programme, we have started work on drawing up contingency plans this month. We are now developing a framework to facilitate the formulation of our plans which will, in general, cover -

(i)   the arrangement should the rectified systems become non-functional as expected; and

(ii)   the arrangement should the expected rectification work be unable to complete before flipping over to the next century.

The plans for all critical systems will be ready by June this year.

5.   In addition to the Housing Department Internal Audit Section observing the implementation of the exercise, the HDCC is also assessing the need to engage third parties to conduct additional audits on our compliance programme.

FINANCIAL IMPLICATIONS

6.   So far, we have spent about $25 million for the exercise. The majority is used in engaging service providers to rectify the IT systems and check the PCs. A smaller amount is used in employing consultants in assessing the compliance status of our embedded systems. Further expenditure for rectification/replacement of the non-compliant embedded systems will be absorbed by the respective maintenance budgets.

INFORMATION

7.   This paper is issued for Members' information. We will continue to keep Members informed of the status regarding our progress in dealing with the *Year 2000 Challenge*.

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