

For information
on 8 November 1999

**Legislative Council Information Technology
and Broadcasting Panel**

**Progress of Y2K compliance work within Government and in
non-government organisations funded or regulated by Government**

Introduction

This paper reports on -

- (a) the progress of Y2K compliance work in the Information Technology and Broadcasting Bureau (ITBB) and in Government departments and non-government organisations (NGOs) providing essential services which fall under ITBB's purview;
- (b) the latest position of Year 2000 compliance within Government and among NGOs which provide essential services;
- (c) the progress in formulating the territory-wide Y2K contingency plan, and the territory-wide monitoring and co-ordinating arrangements for Y2K purposes during the millennium rollover; and
- (d) publicity activities to prepare the public for a smooth and orderly transition to year 2000.

Progress of Y2K compliance work in ITBB and Government departments under ITBB's purview

2. As reported at the last Panel meeting held on 2 August 1999, ITBB and the Television and Entertainment Licensing Authority (TELA) do not have any mission-critical¹ systems. The other three government departments under ITBB's purview, namely the Information Technology Services Department, Office of the Telecommunications Authority (OFTA) and Radio Television Hong Kong, have achieved Y2K compliance for all their mission-critical systems. ITBB and the four departments under its purview have formulated contingency plans to cope with Y2K-induced disruptions.

Progress of Y2K compliance work in NGOs under ITBB's purview

3. There are two essential service sectors under the purview of ITBB, i.e. the telecommunications sector and the broadcasting sector. The progress of Y2K compliance work and contingency planning in these two sectors are summarised in paragraphs 4 to 11 below.

Telecommunications

(a) Y2K compliance position

4. As of mid-October 1999, all fixed and mobile network operators, all operators of public radiocommunication services (including public paging services, trunked radio services, mobile data services and vehicular tracking services) and the vast majority of operators of public non-exclusive telecommunication services (PNETS) (including external telecommunications services, Internet access services, etc.) have achieved Y2K compliance.

¹ Mission-critical systems are those computer and embedded systems whose proper functioning is related to public health and safety, the provision of critical services to the public, or payment and revenue collection.

(b) Y2K contingency planning

5. Local telecommunications operators have, having regard to their own Y2K compliance position, identified residual Y2K risks and formulated contingency measures (including clock re-set, system reloaded, signal re-routed, backup power supply etc.) to address these risks. Most of the operators will arrange additional staff on standby and set up Y2K emergency teams to work with OFTA's Y2K Co-ordination Centre on the Y2K critical dates. A summary of the organisational contingency plans of the major operators (which include operators of all fixed and mobile networks, the satellite operators and the major PNETS operators) is published on OFTA's Y2K web pages (<http://www.ofta.gov.hk/year2000/y2k-altmain.html>). OFTA has examined these organisational contingency plans and are generally satisfied with them.

6. In addition, OFTA has drawn up a sector-wide contingency plan for the telecommunications sector in consultation with all fixed and mobile network operators. The sector-wide contingency plan covers, among others, emergency services (i.e. 999, 992 and 112 for communication with the Police), local fixed voice and fax services, local mobile voice and data services as well as external services (including cable and satellite-based services). Local operators consider that the possibility of any Y2K-induced failures in their systems is very slim. In the event that such failures occur, all fixed and mobile network operators aim to rectify the problem and restore the service to normal condition within two hours after the commencement of actual rectification work.

7. OFTA has rehearsed the operation of its Y2K Co-ordinating Centre on 20 August 1999 in collaboration with all major local telecommunications operators. During the rehearsal, fault scenarios were simulated and fault reporting procedures and communication between OFTA's Y2K Co-ordinating Centre and the telecommunications operators were tested. The result was satisfactory.

8. To enhance the transparency of the Y2K compliance status of the telecommunications sector and to allow the local users of telecommunications services to draw up their own contingency plans, the Telecommunications Authority (TA) has published the Y2K compliance

status of all licensed public telecommunications operators in Hong Kong at OFTA's web-site. It has also required those PNETS operators which are not yet Y2K compliant as at the end of September 1999 to advise their customers of their non-compliant status, formulate suitable contingency plans and submit the same to OFTA for evaluation. OFTA has issued a press statement on 22 October 1999, inviting the general public to visit OFTA's web-site to find out whether their telecommunications service providers are Y2K compliant and to take precautionary actions as necessary.

Broadcasting

(a) Y2K compliance position

9. As of mid-October 1999, all broadcasters operating in Hong Kong are already Y2K compliant. All necessary Y2K rectification work has been completed.

(b) Y2K contingency planning

10. All local broadcasters have developed their own contingency plans to deal with possible, albeit unlikely, Y2K-induced incidents affecting their operation. They have identified critical risk scenarios and have formulated contingency measures (including manual fallback, signal re-routed, alternative broadcasting sites and backup power supply) to cope with such scenarios. Individual broadcasters will establish their own emergency centres which will be activated during Y2K critical dates to monitor and manage Y2K-induced incidents affecting their services. In addition, all broadcasters will arrange for additional staff to be on duty or on standby during the rollover to Y2K critical dates so that there will be sufficient manpower to deal with any Y2K-induced disruptions. All local broadcasters in operation have carried out trial-runs or drill tests of their contingency plans. They have also provided training to their staff on the implementation of the contingency procedures.

11. At the sector-wide level, a Y2K monitoring and co-ordinating mechanism has been established. TELA will activate a Broadcasting Sector Emergency Centre (BSEC) to monitor and respond to Y2K-induced incidents that occur in the broadcasting sector on Y2K critical dates. In case Y2K-induced incidents are identified, the broadcasters will be responsible for mobilising the necessary resources to address the cause of the incidents, mitigate their adverse impact and report such incidents to BSEC immediately. BSEC was activated during the rollover to 9 September 1999. The operation of the monitoring and co-ordinating mechanism was found to be satisfactory.

Summary of progress of Y2K compliance work within Government

12. For Government bureaux and departments, as at the end of October 1999, all mission-critical computer and embedded systems are Y2K compliant². All Government bureaux/departments have formulated departmental Y2K business continuity plans in accordance with the guidelines on Y2K contingency planning drawn up by the inter-departmental Steering Committee on Year 2000 Compliance.

13. A breakdown of the Y2K compliance positions of individual Government bureaux/departments is set out at the Annex.

Summary of progress of compliance work in NGOs providing essential services

14. The compliance positions of NGOs providing essential services to the public are summarised in paragraphs 15 to 31 below.

Financial Services

15. As of end September 1999, all banks, members of the Stock Exchange and Futures Exchange, insurance companies and insurance brokers had rectified all their mission-critical systems and completed the

² These systems include systems which are confirmed to be compliant or have been rectified as well as systems which can be rectified by resetting the clock on or after 1 January 2000.

internal testing of such systems. Two registered intermediaries under the direct supervision of the Securities and Futures Exchange had not completed internal testing work as at end September 1999, but expect to do so by end October 1999.

16. In respect of contingency planning, at the institutional level, according to reports submitted to the financial regulators, all banks, members of the two Exchanges, insurance companies and insurance brokers have put in place contingency plans for the Y2K transition. As for non-exchange registered intermediaries in the securities and futures industry, over 99% of them reported at end September 1999 that they had completed their contingency plans. The remaining institutions are expected to complete their contingency plans by end October 1999.

17. In order to prevent, mitigate and contain Y2K-induced disruptions to the financial services sector as a whole as far as possible, a sector-wide Y2K contingency plan is being formulated. As part of this sector-wide contingency plan, the Financial Services Bureau will set up an emergency co-ordination centre to co-ordinate the exchange of information within the sector, to monitor Y2K-induced incidents that occur in the sector during the Y2K critical periods, and to communicate with other sectors through the Y2K Central Co-ordinating Centre (CCC).

Energy Supply

18. The two power companies (i.e. China Light and Power Co. Ltd. and The Hong Kong Electric Co. Ltd.), Towngas and the five suppliers of oil and liquefied petroleum gas (i.e. Esso Hong Kong Ltd., Caltex Companies (Greater China) Ltd., Shell Hong Kong Ltd., China Resources Petrochems (Group) Co. Ltd. and Mobil Oil Hong Kong Ltd.) have achieved Y2K compliance for their mission-critical systems. All of them have put in place contingency plans to cope with unforeseen Y2K-induced incidents.

19. The Electrical and Mechanical Services Department (EMSD) is in close liaison with the energy suppliers over the progress of the latter's

Y2K compliance work. The Department has visited the energy companies to examine their Y2K compliance programmes and contingency plans. The results were found to be satisfactory.

20. The Hong Kong Nuclear Investment Co. Ltd. (HKNIC) reported that all the rectification work in the Guangdong Nuclear Power Station (GNPS) had been completed. An integrated contingency plan has been put in place since June 1999 and was satisfactorily tested in September 1999. The plan has been reviewed by the International Atomic Energy Agency and the National Nuclear Safety Administration.

21. To further safeguard service continuity, the power companies and the oil companies have respectively developed sector-wide Y2K contingency plans. For instance, the sector-wide contingency plan for the power companies aims to maintain uninterrupted supply of electricity and, in case of power outage, to resume service as quickly as practicable. The oil companies, on the other hand, will follow the established “borrow and loan” practice in the industry in case of any Y2K-induced disruptions during the Y2K critical periods. EMSD will set up an Energy Sector Co-ordination Centre during the Y2K critical periods to facilitate communication within the energy supply sector.

Transport and Aviation

22. As of mid-September 1999, all public transport service providers, including bus companies, railway corporations, ferries, tramways and tunnel operators, have completed their Y2K rectification work and have submitted their organisational Y2K contingency plans to the Transport Department (TD). TD has examined the contingency plans of individual transport operators and has refined them to tie in with the sector-wide contingency plan.

23. TD assumes an overall co-ordination role in the preparation of a sector-wide Y2K contingency plan for the transport sector. This sector-wide contingency plan has been drawn up having regard to the contingency plans formulated by individual transport service providers,

the risk assessment on the operation of transport services due to Y2K-induced disruptions, and the existing emergency handling arrangements. As part of the sector-wide contingency plan, TD will activate the Emergency Transport Co-ordination Centre (ETCC) during the rollover to Y2K critical dates for the central co-ordination of transport services.

24. On aviation, the Airport Authority (AA) has completed the rectification work for its systems by 31 August 1999. In respect of contingency planning, AA has compiled a Y2K Contingency Procedures Manual which sets out all the procedures to be implemented to maintain continuity of critical airport operations (i.e. the processing of passengers, baggage, cargo and mail) in the event of any Y2K-related system failure. A series of drills and exercises have been conducted to ensure that the contingency procedures can be implemented smoothly.

25. Apart from the contingency plan developed by AA on airport operation, Civil Aviation Department (CAD) has also formulated a contingency plan for the safety- and security-related systems and regional air traffic control. Both AA and CAD will continue to conduct drills and exercises in the remainder of the year with a view to further improving and refining the contingency arrangements.

Public Health Services

26. As at 25 October 1999, the Hospital Authority (HA) has completed all the necessary rectification work for its mission-critical systems. There is one X-ray system in the Queen Mary Hospital (QMH) which is not Y2K compliant but will be retired before year 2000. A new Y2K-compliant system will be commissioned to replace this X-ray system by end November 1999. According to HA, even if the replacement work cannot be completed on time, QMH can still use other X-ray systems in the hospital to provide the same service. On contingency planning, the contingency plans at both hospital and cluster levels have been completed and submitted to HA Headquarters.

27. For private hospitals and nursing homes, all 14 affected organisations have achieved Y2K compliance. They have also submitted their Y2K contingency plans to the Department of Health.

28. At the sector-wide level, the Health and Welfare Bureau, in consultation with HA and Department of Health, has drawn up a sector-wide contingency plan covering both the public and private medical sectors. A Health Sector Y2K Co-ordinating Centre will be set up during the Y2K critical periods to facilitate co-ordination among the service providers of the health sector in order to ensure that the safety of patients will not be affected by Y2K-induced disruptions.

Social Welfare Services

29. As of mid-October 1999, all the NGOs regulated by the Social Welfare Department (SWD) and 99% of the NGOs subvented by SWD have completed the rectification work for their mission-critical systems. Those mission-critical systems which are being rectified are largely financial systems and the outstanding rectification work is expected to be completed by the end of 1999.

30. The Joint Initiative undertaken by SWD and the Hong Kong Council of Social Service has developed a generic Y2K contingency plan for the reference of all subvented and regulated NGOs to assist them in reviewing whether their contingency plans are adequate and in enhancing their contingency plans as appropriate. The Joint Initiative has also organised workshops on Y2K contingency planning for NGOs to share experience in this respect.

Tertiary educational institutions

31. All the UGC-funded institutions have achieved Y2K compliance and formulated Y2K contingency plans to cope with Y2K-induced disruptions.

Assistance for small and medium-sized enterprises (SMEs) in tackling the Y2K problem

32. Government's approach to assisting local small and medium-sized enterprises (SMEs) in tackling the Y2K problem is twofold. First, through closely monitoring the Y2K compliance work of the essential service providers, we aim to provide a Y2K-ready business environment for local enterprises so that their business will not be disrupted by the millennium rollover. Second, as reported at the last Panel meeting, to mitigate the impact of the Y2K problem on local SMEs, we have, in co-operation with the Hong Kong Productivity Council (HKPC), provided practical assistance to SMEs in tackling the Y2K problem.

33. With the completion of the Y2K compliance work of most essential service providers, the business environment in Hong Kong is in general Y2K-ready. As for the SMEs themselves, we note that there have been notable improvements in terms of Y2K readiness as reflected by the outcome of the survey conducted HKPC in June 1999. To further minimise the risk exposure of our SMEs to the Y2K problem, we have intensified our assistance and publicity programmes targeted at SMEs. In particular, we have –

- (a) worked closely with HKPC to further promote the “888 Bug-buster” Programme through direct mailing to SMEs;
- (b) produced a new set of TV and radio API on this theme in October 1999. These are now being broadcast; and
- (c) co-operated with the major trade and industry organisations to disseminate the message through their web sites and regular newsletters/circulars to their member companies.

Territory-wide contingency planning

34. As stated above, all government bureaux and departments have drawn up Y2K business continuity plans to safeguard the continuity

of their core businesses. In addition, the 13 essential service sectors have formulated sector-wide contingency plans to co-ordinate emergency response within the sector in case of any Y2K-induced incidents. These essential service sectors are food supply, transport, financial services, public order, fire and emergency services, environment, aviation, public health, telecommunications, port management, energy supply, immigration and broadcasting.

35. For Y2K contingency planning, at the territory-wide level, our main objective is to set up a monitoring and co-ordinating mechanism that will enable us to effectively co-ordinate emergency response to any major Y2K-induced incidents which have cross-sector implications. We have, at the last Panel meeting, presented to Members the structure of the territory-wide monitoring and co-ordinating mechanism.

36. To minimize the possible adverse impact of the Y2K problem, we need to ensure that there is good coordination among various parties involved in the implementation of different levels of contingency plans and that alternative modes of operation have been rehearsed and can be activated promptly. To this end, we have conducted several rounds of desk-top exercises and a command post exercise during September and October 1999. The objectives of these exercises are to –

- (a) identify possible gaps in the sector-wide and territory-wide contingency plans; and
- (b) enable the parties involved in the implementation of sector-wide and territory-wide Y2K contingency plans to be fully conversant with their respective roles in times of emergency and to enhance co-ordination among them.

In the remaining months leading to the new millennium, we will focus our efforts on fine-tuning the territory-wide monitoring and co-ordinating arrangements and on thoroughly testing the emergency response arrangements with all concerned parties.

Monitoring and Co-ordinating Arrangements for the Millennium Rollover

37. As reported at the last Panel meeting, a Y2K CCC will be established to monitor the overall situation during the rollover to Y2K critical dates. During its period of operation, the CCC will work closely with the sector-wide co-ordinating centres of the 13 essential service sectors to monitor the local situation, with particular emphasis on how smoothly Government and the essential services providers roll over to the new millennium, as well as the situation overseas. In the event of any major Y2K-induced incidents with cross-sector implications, the CCC will also be responsible for co-ordinating emergency response on a territory-wide basis.

38. With regard to its monitoring role, CCC will focus on the following four areas –

(a) Rollover in overseas economies

39. Starting from 19:00 on 31 December 1999 (Hong Kong time) when the first major overseas economy, i.e. New Zealand, will roll over to the new millennium, the CCC will keep vigilance over the situation in all major economies through Information Services Department, the Hong Kong Economic and Trade Offices (HKETOs) overseas and the official Y2K web sites of overseas Governments and relevant organisations until the last major economy (i.e. the west coast of the USA) has also rolled over to the Year 2000 (i.e. 16:00 on 1 January 2000 Hong Kong time). Such overseas monitoring will continue if circumstances so warrant.

(b) Rollover of local essential services

40. From shortly before midnight on 31 December 1999 until 09:00 on 1 January 2000, the CCC will closely monitor the rollover of local essential service providers (whether within or outside Government) with the assistance of sector-wide co-ordinating centres.

(c) Wellness checks of mission-critical systems within Government

41. From 09:00 to 20:00 on 1 January 2000, Government bureaux and departments with mission-critical systems will be required to conduct 'wellness checks' for their mission-critical systems, and report the result to the CCC once known. The objective of this exercise is to confirm as early as possible whether there is any Y2K-induced failures in our mission-critical systems, and if necessary to carry out the required remedial work before the first working day in the new year so that our essential service to the public will not be disrupted.

(d) Business-as-usual reports

42. From 07:00 to 20:00 on 3 January 2000, i.e. the first working day in the new millennium, all Government bureaux and departments will be required to report to the CCC on whether their operation is affected by any Y2K-induced failures encountered by their business partners, both local and overseas.

43. Assuming a successful rollover, the CCC will stand down at 20:00 on 3 January 1999. Thereafter, ITBB will continue to monitor the overall situation until the need for such has subsided. The CCC will be re-activated during the rollover to 29 February and 1 March 2000.

44. During its period of operation, the CCC will arrange regular press briefings and issue press releases in conjunction with the Information Services Department to inform the public of the latest position after the rollover to the new millennium.

Publicity Programmes

45. As reported at the last Panel meeting, the objective of Government's Y2K publicity programmes is threefold –

- (a) to enhance understanding among the general public of the impact of the Y2K problem and how they can

prepare themselves for a smooth and orderly transition;

- (b) to enhance public awareness of the Y2K compliance status of Government and essential service providers; and
- (c) to educate businesses on the importance of Y2K contingency planning and ask them to take necessary precautionary action ahead of the critical Y2K dates.

To achieve the above objectives, a series of publicity and promotional programmes have been organised since the last Panel meeting in August 1999. These are summarised in paragraphs 46 to 53 below.

Enhance public understanding of the impact of the Y2K problem

46. As set out in paragraph 33 above, we have stepped up publicity targeted at the SMEs with a view to minimising the risk exposure of our SMEs to the Y2K problem. As for the public at large, we shall publish a booklet in early November 1999 to set out the latest compliance positions of essential services sectors, clarify common misconceptions about the impact of the Y2K problem, and provide practical advice on points to note during the rollover to the new millennium. The booklet will be distributed to the public through banks, major supermarkets, KCRC stations and District Offices. We shall also stage a roving exhibition at various popular locations to coincide with the publication of the booklet.

47. To enable our senior citizens to get a better understanding of the nature of the Y2K problem, we have produced a series of short Y2K-related radio programmes for broadcast on RTHK Radio 5 in October 1999. In co-operation with SWD, we disseminate information on the Y2K problem to elderly singletons through the Department's Elderly Support Scheme.

48. Public education on the Y2K problem is also carried out through the “E-community Ambassador”³ during its visits to districts.

Enhance transparency of Y2K compliance

49. To enhance the transparency of the compliance position of Government departments and essential services providers, we have been encouraging Government bureaux and departments as well as NGOs which provide essential services to disclose their compliance information through various means, such as setting up of Y2K web pages, distribution of leaflets or information notes, etc.

50. Government’s dedicated Y2K web site (<http://www.year2000/gov.hk>) is a main channel to publish the latest compliance position of Government and essential service providers. As of end October 1999, we have recorded a total of 374000 visitors to our Y2K web site since its launch in June 1998. In anticipation of wider exposure of our Y2K web site to an international audience in the run-up to 2000, we have enhanced the contents of the web site in September 1999, adding hyper-links to overseas Y2K web sites and making the web pages more user-friendly and attractive.

51. For individual government departments, as of mid-October 1999, 41 Government bureaux and departments⁴ have established their

³ The “E-community Ambassador” is a converted container vehicle equipped with computer facilities for demonstration and exhibition purposes. It visits public locations on a regular basis to promote the use of IT in the community.

⁴ These 41 Government bureaux and departments include Census and Statistics Department, Civil Aviation Department, Companies Registry, Correctional Services Department, Customs and Excise Department, Department of Health, Education Department, Electrical and Mechanical Services Department, Fire Services Department, Financial Services Bureau, Government Laboratory, Highways Department, Home Affairs Bureau, Hong Kong Monetary Authority, Hong Kong Observatory, Hong Kong Police Force, Hong Kong Post, Housing Bureau, Immigration Department, Industry Department, Information Services Department, Information Technology and Broadcasting Bureau, Information Technology Services Department, Inland Revenue Department, Intellectual Property Department, Land Registry, Management Services Agency, Marine Department, Office of the Commissioner of Insurance, Office of the Ombudsman, Office of the Telecommunications Authority, Planning Department, Radio Television Hong Kong, Rating and Valuation Department, Social Welfare Department, Trade Department, Transport Department, Treasury, Urban Services Department, Water Supplies Department and Works Bureau.

own Y2K web-pages to disseminate Y2K compliance information about themselves through the Internet.

Enhance awareness of the need for Y2K contingency planning

52. Y2K contingency planning is an important step in tackling the Y2K problem. To disseminate this message to local businesses, in particular the SMEs, ITBB organised a large-scale symposium on Hong Kong's Y2K Readiness and a seminar on Y2K contingency planning in co-operation with the Hong Kong Productivity Council on 18 August 1999 and 31 August 1999 respectively. Both events were very well received and attracted more than 1000 participants in total.

53. In the run-up to 2000, we shall continue our efforts on the publicity front to prepare the whole community for a smooth and orderly transition to the new millennium.

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