***TABLE OF CONTENT***


| | ***Page*** |
|---|---|
| *Introduction* | *1* |
| *Status As At 15 October 1999* | *1 - 2* |
| *Supervisory Measures* | *2* |
| *Budget* | *3* |
| *Contingency Planning* | *3 - 4* |
| *Awareness Programme* | *4 - 5* |
| *International Accreditation* | *5* |
| *Event Management - Strategy and Execution* | *6 - 8* |
| *Cross Border Reporting* | *8* |
| *Sector Level Contingency Measures* | *8 - 13* |
| *Contact List* | *14* |


**An Update**

# The Year 2000 Problem: Readiness of the Malaysian Banking & Insurance Sector Report by Bank Negara Malaysia

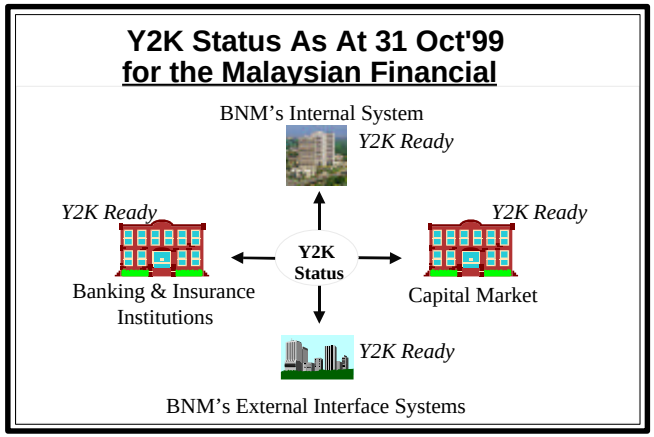
*The financial sector is regulated by Bank Negara Malaysia and Securities Commission of Malaysia.. Bank Negara Malaysia supervises the commercial banks, merchant banks, finance companies, discount houses and insurance companies, whilst Securities Commission supervises the exchanges, clearing houses, issuing houses, stock brokers, futures and commodity brokers and unit trusts. As of 15 October 1999, both regulators and the sectors each regulates, have achieved a satisfactory state of Y2K readiness. It is now confirmed that the Malaysian financial sector is prepared to meet any of the challenges posed by the Y2K 'Millennium Bug'.*

***This report was prepared by the Year 2000 Business Risk & Continuity Committee of Bank Negara Malaysia.***
***The information is valid as at 15 October 1999.***
***Further updates can be obtained from our web-sites at www.bnm.gov.my***

## Introduction

In July 1999, Bank Negara Malaysia and Securities Commission of Malaysia jointly published the "Y2K Malaysian Financial Sector Status Update and Continuity Planning" Booklet. This document describes the state of readiness and the supervisory activities and initiatives undertaken by the two regulatory bodies and the contingency planning methodology adopted for their contituents. and the sector as a whole. In this supplementary booklet, an update on the state of readiness of the banking and insurance industries as at 15 October 1999 will be elaborated.

## Status as at 15 October 1999




The Malaysian banking, insurance and capital market sector is Y2K ready. This means that these institutions have completed all the work required in the assessment, renovation, testing and implementation phases of the Y2K remediation programme and are ready with their respective business resumption and contingency plans. Therefore, the banking institutions, insurance companies and capital market are expected to continue to operate and provide services before, during and after year 2000.

The real-time gross settlement system (RENTAS), national cheque clearing system (SPICK) managed by Bank Negara Malaysia, and the ATM network (MEPS) are also Y2K ready. As a precautionary measure, the facilities for manual clearing of cheques and interbank settlement have been prepared and the procedures are currently being tested.

## Supervisory Measures

To ensure the Y2K readiness of the banking institutions and insurance companies under its supervision, Bank Negara Malaysia has undertaken several measures including:-

- Issuing directives and guidelines that requires specific measures to be undertaken by the banking institutions and insurance companies to address the Y2K problem.
- Monitoring progress of the banking institutions and insurance companies in their Y2K remediation efforts through monthly progress reporting to Bank Negara Malaysia
- Performing on-site examinations on the banking institutions and insurance companies to review and assess adequacy of measures undertaken to address the Y2K problem.
- Requiring the banking institutions and insurance companies to appoint independent reviewers to assess adequacy of measures undertaken to address business and computing risks.

To ensure effectiveness of the Y2K remediation programme by the banking institutions and insurance companies, BNM has adopted internationally accepted standards and guidelines proposed by international bodies such as the Bank for International Settlement, U.S. General Accounting Office and Global 2000 in its monitoring efforts.

**Budget**

From the survey conducted by Bank Negara Malaysia, the amount spent for Y2K according to category of financial institution is:

| **Financial Institution** | **RM (in million)** |
|---|---|
| Commercial banks, merchant banks And finance companies | 492 |
| Insurance companies | 89 |
| Reinsurance companies | 2 |
| Discount houses | 2 |
| Total | 585 |

**Contingency Planning**

In spite of all the measures taken to remediate the Y2K problem, there are still risks that the systems in the banking institutions and insurance companies may fail. To avert operational failures which may be caused by the Y2K problem within the financial sector sector itself or caused by failure of services in other related critical sectors, Bank Negara Malaysia has directed all banking institutions and insurance companies to formulate a business resumption and contingency plan by 30 April 1999. All banking institutions and insurance companies have completed their respective contingency plans and are currently testing them. The contingency plans for the inter-bank payment system and national cheques clearing system have also been completed and tested.

Bank Negara Malaysia has implemented contingency measures to assist the banking and insurance industries to prepare for year 2000. These include:

- Declaring 31 December 1999 as a non-transaction day. This is to allow the financial institutions more time to complete year-end processing as well as to give financial institutions additional buffer time to prepare for the contingency procedures such as performing back-up of data, printing customer statements and critical reports.
- Ensuring additional currency is available in anticipation of higher demand for cash, not only because of Y2K, but also for end of year festivities. Bank Negara Malaysia will standby to inject addititonal liquidity should the need arise.
- Ensuring the availability of ATM services for at least 5 hours from 7 a.m. to 12 noon on 31 December 1999.
- Prescribing minimum service levels for the banking institutions and insurance companies if affected by the Y2K problem.

**Awareness Programme**

Bank Negara Malaysia has embarked on the following initiatives in order to raise the public’s awareness on the efforts taken and will be taken by Bank Negara Malaysia , the banking and insurance industries in tackling the Y2K problem.

- Publication of "Y2K - Malaysian Financial Sector Status Update & Continuity Planning" in joint collaboration with SC on 15 July 1999.
- Publication of Y2K pamphlets in 3 languages, i.e. Bahasa Melayu, Inggeris and Mandarin, to be distributed to the public through the banking institutions.
- Conducting a national road show for members of the banking community and will be conducting a second road show for the chambers of commerce.
- Participating in national and international seminars and conferences to report on the status of the sector's Y2K readiness.
- Conducting public awareness programme through the broadcast media such as television and radio programmes.

Apart from these measures, Bank Negara Malaysia has also established a Command Centre to co-ordinate and administer all issues related to Y2K and to monitor the situation especially during the period surrounding the critical dates namely 9 September 1999, 1 January 2000 and 29 February 2000. The centre also act as a help desk to entertain queries from the public on the Y2K problem. The centre is in operation from 1 September 1999 until 4 March 2000. Its operating hours are from 9:00 a.m. to 4:30 p.m. except for during the critical period when it will be operating for 24 hours.

For additional information on contingency planning and scenarios within the banking sector, please refer to the 'Y2K Malaysian Financial Sector Status Update & Continuity Planning' booklet available at the Bank Negara Malaysia and Securities Commission of Malaysia web-sites. The addresses **are www.bnm.gov.my and www.seccom.com.my.**

## International Accreditation

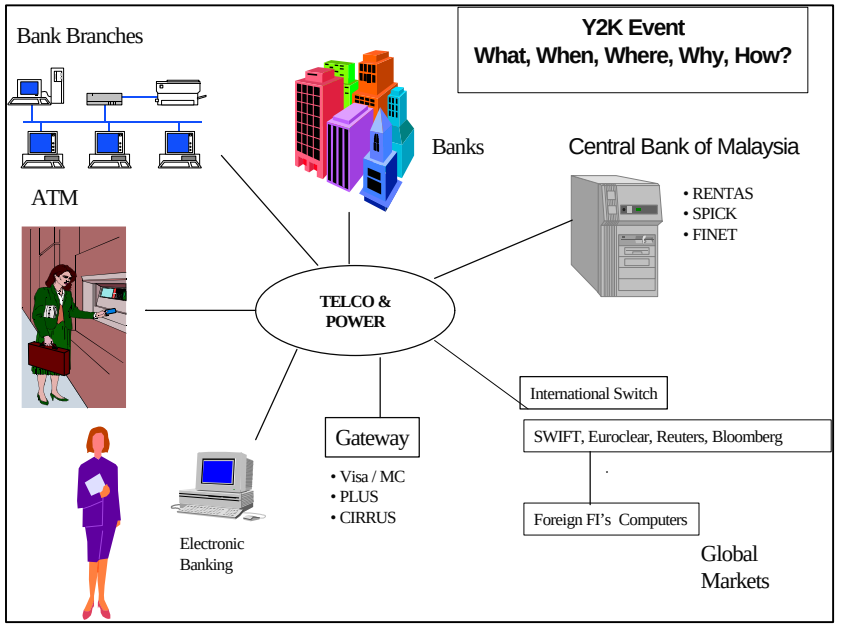
The efforts taken by Malaysia in general and the financial sector in particular has received a number of accreditation by international organisations:-

- The United States of America's Consulate Information Sheet dated 14 September 1999 has rated Malaysia as low risk for Y2K.
- The Foreign and Commonwealth Office report on countries' Y2K readiness report dated 14 September 1999 has highlighted Malaysia's state of preparedness and reported favourably on Malaysia.
- Global 2000 has rated Malaysia's financial services and clearing and settlement organisations as satisfactory on 21 September 1999.

## Event Management - Strategy and Execution

Event Management has become the new 'Y2K Paradigm'. As with most paradigms, the most difficult part is recognising what is relevant, what is irrelevant and why is it so. At the most basic level, event management can be explained as a set of policies and actions designed to promote continuity in banking or financial services regardless of any Y2K disruption. Organisations in other sectors of the economy would be concerned about events that may disrupt operations within their own sectors. The management and operations functions would also be concerned about linkages between different sectors. At the risk of stating the most obvious point, all sectors would be concerned about the availability of power and telecommunication services.

The Malaysian banking and insurance sectors fall within the jurisdiction of Bank Negara Malaysia, and are responsible for the provision of banking services throughout the nation. The diagram below maps one view of the possible scope for event management within the banking system of Malaysia.

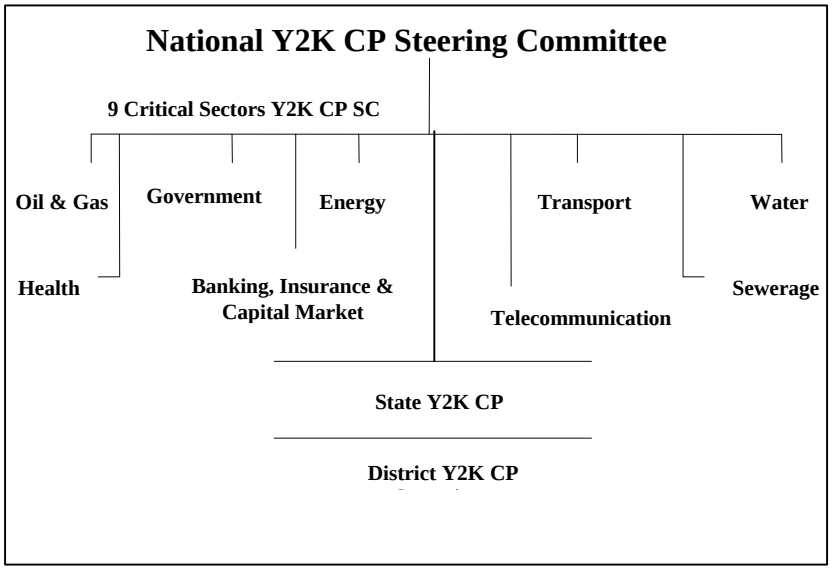


The above picture illustrates the many different 'vulnerable points' to a Y2K event. Contingency planning by all the different institutions that comprise the banking system will go a long way in alleviating the risks associated with failure of computer systems. Over and above that, it is necessary to manage 'perception of failure' since the one element that will hold together the entire superstructure regardless of any Y2K event is the confidence that the different constituents have in the system. If the public were to loose confidence, it may not matter that all the systems are Y2K ready. The system may yet collapse. It is for this reason that the most important aspect of event management is *Communication.*

Bank Negara Malaysia has established a Y2K Command / Communication Centre equipped with the necessary telecommunication equipment and more importantly, trained personnel to receive, process and disseminate information from and to all relevant parties. An important prerequisite to communication is the availability of reliable information. Fundamental to this is the Y2K Health Check, both for the private sector institutions, as well as the regulators of different financial systems around the world.

Bank Negara Malaysia issued a directive dated 1 September 1999 to all the financial institutions under its jurisdiction on the need to establish the functions associated with a command or communication centre. The format and reporting requirements of the Y2K health check were also spelt out. The health check, includes a systems check, a liquidity check and a rollover mock test. The reporting period will be from late November 1999 for liquidity, and continue until 7 January 2000 for all categories. During the actual rollover period, several reports will be submitted during each day to ensure timely updating of information. The command centre will operate on a 24-hour basis from 30 December 1999 until 4 January 2000.

This command centre structure will be reflected throughout the country by all the nine critical sectors identified by the Malaysian National Y2K Project Team. The National structure for Y2K contingency and event management planning is illustrated on the next page..




## Cross-Border Reporting

The last aspect of Y2K event management is cross-border reporting. Bank Negara Malaysia will be participating in two international health check reporting channels for financial institutions and systems. The first is the EMEAP (Executive Meeting of East Asia Pacific Central Banks), and the second is the cross-border communication organised by the Joint Year 2000 Council of the Bank for International Settlement (BIS) for bilateral and multilateral communication.

## Sector Level Contingency Measures

### *Managing Public Confidence*

The most critical Y2K risk within the banking and insurance industries is lack of public confidence which could cause a massive withdrawal of funds from financial institutions. It is of paramount importance that the public retains their faith in the banking system. The public must

understand the measures taken by Bank Negara Malaysia in ensuring that the financial institutions are ready to meet the challenges posed by Y2K. In order to facilitate such understanding, a systematic awareness campaign must be undertaken.

Bank Negara Malaysia has completed a comprehensive programme designed to educate, inform and build confidence amongst the public about Y2K issues pertaining to the banking system. The highlights of the plan are:

- Publish information about Bank Negara Malaysia's activities in managing Y2K problems within the banking and insurance industries. All main forms of media, i.e. TV, radio and paper are being used.
- A national road-show was conducted in September - October 1999 for the Malaysian banking community. A second national road-show is being planned for the various Chambers of Commerce, and will held in November 1999.
- Collaborate with industry members in informing the public through the media on the banking and insurance industries' Y2K readiness, and responding to enquiries. Y2K pamphlets have been distributed for this purpose.
- A well equipped command / communication centre has been established for Event Management to prevent any actual or perceived Y2K disruption from causing undue disturbance.

***Managing Currency and Liquidity Risk***

Bank Negara Malaysia's Currency Management and Operation Department is responsible to ensure that there is sufficient currency to cope with the normally higher demand for cash during year end, Christmas and Hari Raya festive seasons. In addition, the department has also factored the Y2K issue into their calculations. The contingency measures undertaken by Bank Negara Malaysia include the following:

- Bank Negara Malaysia's Currency Management and Operation Department will ensure that additional currency is stored at its six branches and financial institutions around the country well before the New Year.
- All financial institutions will be instructed to maintain higher than normal levels of cash.
- Command Centre at the central bank and other financial institutions is state of readiness to deal with demand for cash.
- An awareness programme to be gradually launched during the latter part of 1999, and into the year 2000 to keep the public informed, help mitigate panic and maintain public confidence.
- Branch counter operations will ensure that cash is available in the event of a Y2K disruption that causes automated teller machines and other electronic payment channels to be incapacitated.
- Bank Negara Malaysia's Treasury Department will monitor money market liquidity, and stand-by to inject additional liquidity if necessary.

***Managing Market Risk***

It can be reasonably anticipated that the known date for possible Y2K disruption, coupled with the largely unknown extent of potential damage, will create opportunities for market speculators. The markets in question include the stock market, futures market, foreign exchange market and money market. The nature of risk includes distorted pricing and extreme volatility. Bank Negara Malaysia will closely monitor developments in the financial markets. The methods for intervention by central banks are well developed and there is little need to re-invent the wheel for Y2K. The Treasury and Banking Department and Bank Regulation Department as well as Economics Department will each play a role in mitigating market risk. The actions that have been taken so far include:

- Declaring 31 December 1999 and 2 January 2000 as 'Non-Transaction Days' to allow the institutions more time to complete year end processing, as well as put in place contingency measures to protect data integrity. Assurance that all data will be safely and accurately

retained will serve to reduce market risk since accuracy of information is a key element for rational market behaviour.

- Malaysian Treasury Bills maturing on 31 December 1999 will be brought forward to 30 December 1999 without loss of interest to the counterparty. There will be no new issue of Malaysian Treasury Bills during the first week of January 2000.
- The standard market practices stipulated in the Code of Conduct shall be applied for payment of interest on Government and Bank Negara Malaysia Securities.
- Contingency plans have been drawn up by Bank Negara Malaysia and all financial institutions for various Y2K disruptions such as temporary loss of power or telecommunication services, failure of any application system used for trading and other problems that may disable automated systems. The plans involve alternate manual procedures as well as pre-arranged signals with major counterparties.
- The possible impact upon liquidity will be taken into account in implementing the liquidity framework within the banking industry.

### *Managing Legal Risk*

The main grounds for legal action being taken against Bank Negara Malaysia would be negligence and breach of contract.

There could be a basis for legal action by the financial industries against Bank Negara Malaysia for negligence due to failure of key systems for which Bank Negara Malaysia is the provider and operator. This claim may have legal ramification if it can be established that :–

- Bank Negara Malaysia has not exercised due care and diligence in protecting the economic interests of the members in ensuring that the system such as RENTAS System or SPICK continue to operate without interruption on and beyond 1 January 2000; and
- That the parties involved have suffered some form of loss.

The best defence against such legal action would be to take all reasonable steps and precautions to ensure that the systems ( critical to the functioning of the financial system) of the Bank are Y2K compliant. Documentary records could provide important evidence to suggest a defence against a claim of negligence. The following documentary evidence is being kept and updated showing preparations to minimise any delay or interruption to the Bank's customers:

- The comprehensive strategic plan currently being implemented.
- Contingency planning of each system's activities and backup operations. Records of remedial actions, contingency plans, communication plans, co-ordination and external interfaces.
- Performing sufficient systems testing.
- Ensuring that ancillary and utility systems are Y2K compliant.
- Setting up a Command Centre.

### *Managing Payment and Settlement Risk*

The banking system is crucial for the national economy since it provides the payment and settlement infrastructure. There are two important systems that need to be considered. The first is the **RENTAS** (Real Time Electronic Transfer of Funds and Securities) system, and the second is the **SPICK** (Sistem Penjelasan Imej Cek Kebangsaan or National Cheque Image Clearing System). Both systems have been tested and found to be Y2K compliant. The SPICK system is already in daily use, whilst the RENTAS system will go live in the 3rd quarter of 1999. Contingency measures have already been drafted and discussed extensively with the members of the system. The key elements of the plan include:

- Detailed manual procedures for converting the real time fund transfer system into a batch end-of-day system. The procedures specify the location, timing, documentation and rules for recording the daily position of all members, and ensuring that by the start of the next

working day all members have confirmed their payment and settlement details. The system will switch from gross settlement basis to net settlement basis to facilitate the manual procedures.

- Detailed manual procedures for the cheque clearing system that covers a range of scenarios such as non-availability of data lines, host system or regional clearing system. The procedures include the temporary extended clearing period, special audit trail documentation and location of additional clearing centres. One important attribute of the contingency plan is to break the national clearing zone into smaller regional zones, thus avoiding the need to send large volumes of physical cheques to a central location. While this plan entails a greater waiting period for funds to clear, it will ensure that the cheque clearing function is not disrupted.
- Mock tests and end-to-end tests will be conducted during the year as well as over the weekend on 1 January and 2 January 2000. These tests will further enhance confidence in the payment and settlement system.

### *Managing Operational Risk*

Operational risk covers a very wide scope since Y2K problems could arise in application systems, operating systems, non-IT systems containing embedded chips or the network that links different systems into a single integrated platform. It is not practical to list all the plans or procedures in this section. Instead, the operational risk issues and the associated contingency measures are illustrated using several scenarios. A small sample is given in the 'Y2K Malaysian Financial Sector Status Update & Continuity Planning' booklet available at www.bnm.gov.my.

**Contact List**

Additional information can be obtained from the following sources:


Web-site www.bnm.gov.my

E-mail y2khelp@bnm.gov.my

Facsimile 6( 03) 298 7421

Helpdesk 6 (03) 293 2330

Mail : Y2K Inquiry
Corporate Services Department
15th Floor, Block B
Bank Negara Malaysia
P.O. Box 10922, Kuala Lumpur
50480 Malaysia



**An Update**

# The Year 2000 Problem:
# Readiness of the Malaysian Banking & Insurance Sector
# Report by Bank Negara Malaysia

Printed by Jabatan Perkhidmatan dan Harta
Bank Negara Malaysia