



# Save & Sound

70 YEARS OF CPF

3

4

**CENTRAL PROVIDENT FUND BOARD**  
**P. O. BOX 3060 — SINGAPORE**

13117	182000
GOH TIAR PANG	

**CONTRIBUTOR'S STATEMENT OF ACCOUNT**

Dear Sir/Madam,

According to my records the amount credited to your account in the Central Provident Fund up to 31st December, 1955,

was →

AMOUNT	NUMBER
\$ 5.00	1820.000000

This amount includes only money which had been paid to the Board by 31st December, 1955. If you consider that the amount is wrong, please return this statement with a note giving details of the contributions with which you believe you should have been credited.

Yours faithfully,  
C. E. GREEN,  
Accountant.

▶ Member contributions were handwritten for the CPF Board's first YSOA in 1955. (Source: CPF Board)

# From Analog to Digital



The days leading up to the issuance of the Yearly Statement of Account (YSOA) would often be spent in a frenzy for the CPF Board employees in the early years. They would be sifting through endless stacks of paperwork – salary slips, identification documents, work passes.

Each employee would be furiously scribbling, calculating, tabulating, and checking each individual CPF contribution. Only then could they accurately tally the employee's and employer's contributions.

“Everything had to be done manually,” recalled the late Mrs Doris Wong, who joined the CPF Board in 1958. “It was quite tedious, unlike today when computers do most of the work.”

In its early days, the CPF Board logged all the account details through ledgers and bulky, typewriter-looking book-keeping machines. After the numbers were checked, producing the statements required another tedious round of manual checks, this time of members' place of employment, home addresses, and personal particulars.

These details – from their names to their five-digit membership numbers and their employer’s reference numbers – were painstakingly handwritten. Their CPF contribution amounts were carefully printed using a typewriter.

The statements, which included a short message from the CPF Board’s accountant at the time,

Mr C.E. Green, would be carefully folded, manually packed into envelopes, and mailed out to each member. This labour-intensive process took its toll as membership grew. Employee morale and productivity levels suffered as it was getting tougher to keep track of the growing number of accounts. Something had to change.

### **DID YOU KNOW?**

Singaporeans used to keep track of their CPF contributions with a CPF membership number. The five-digit number, printed on each individual YSOA, was phased out in favour of the National Registration Identity Card, also known as NRIC number, in 1966. The nine-character alphanumeric identifier that Singaporeans are all too familiar with today has since become a mainstay in today’s statement of account.

## A SUPER SOLUTION

Former CPF Board General Manager, the late Mr Robert lau, remembered the loud sounds of the book-keeping machines, which made the office environment rather noisy and unpleasant.

“It sounded like a factory; all the clattering (and) banging,” the late Mr lau said in an oral history

interview with the National Archives of Singapore.

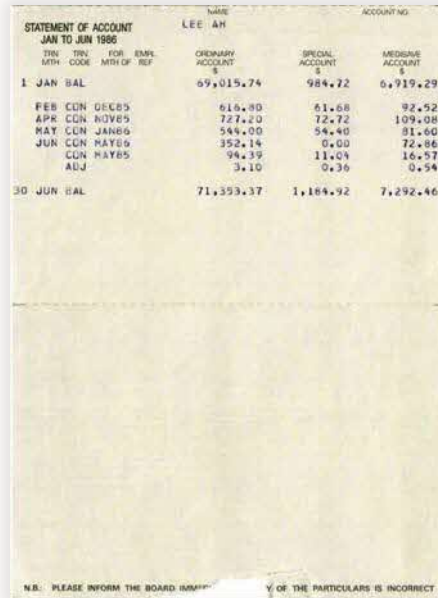
But without the machines, which helped employees compute and add up sums automatically, it would have been impossible to keep tabs of all the members’ accounts. A new approach was needed – one that was more efficient, and less loud.



◀ The IBM1401 Data Processing System that the CPF Board used at the beginning of their digitalisation journey in the early 1960s. (Source: Around the World Photos/ Shutterstock.com)

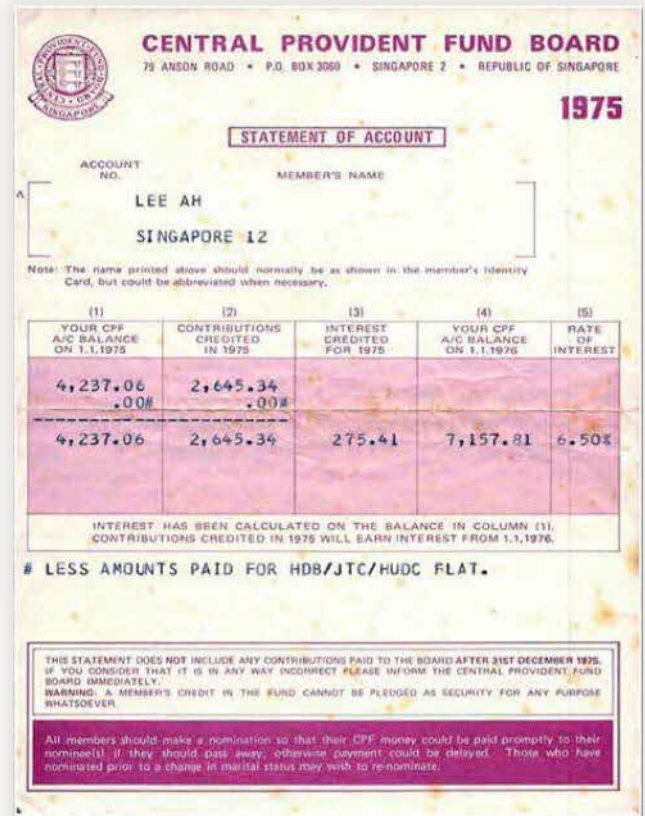
# CPF STATEMENTS THROUGH THE DECADES

► In 1965, when Singapore attained independence, the YSOA got its first major facelift from a vertical to a horizontal format.



► With the introduction of the MediSave and Retirement Accounts in the 1980s, the YSOA became a half-yearly statement in 1986.

► The YSOA was refreshed again in the mid-1970s to reflect new changes to the CPF system.



STATEMENT OF ACCOUNT		NAME	CPF ACCOUNT NO.	
JUL TO DEC 1994				
TBN MTH FOR MTH/ EMP/ REF	ORDINARY ACCOUNT \$	SPECIAL ACCOUNT \$	MEDISAVE ACCOUNT \$	
1 JUL BAL	2,661.60	0.00	12,737.19	
JUL CON JUN94	241.20		160.80	
AUG CON JUL94	372.60		248.40	
SEP CON AUG94	285.00		190.00	
MSH			60.00-	
OCT TFF	18.00			
CON SEP94	327.60		218.40	
NOV CON OCT94	340.80		227.20	
DEC MSH			60.00-	
CON NOV94	330.60		220.40	
INT	60.77	0.00	314.03	
31 DEC BAL	4,638.17	0.00	14,196.42	

THE BALANCE IN YOUR RETIREMENT ACCOUNT AS AT 31 DEC 94 IS \$5,443.26.

YOU HAVE BEEN COVERED UNDER MSH SINCE 01 DEC 92.

YOU HAVE COVERED 1 DEPENDANT(S) UNDER MSH.

THE MSH/MSH PLUS PREMIUM IS INCLUSIVE OF \$3.50 GST.

YOU MADE A NOMINATION ON 05 MAR 84.

YOU HAVE 640 S'PORE TELECOM GROUP A SHARES AS AT 31/12/94.

DIVIDEND OF \$18.00 FOR S'PORE TELECOM GROUP A SHARES HAS BEEN CREDITED INTO YOUR SHARE PROFIT ACCOUNT ON 26/09/94.

2

Nomination forms received and processed after 31 Dec 1994 will not be reflected in this Statement. For the benefit of your dependents, do re-nominate when you marry. Your nomination made before marriage will become invalid. To check your nomination, please come personally to any CPF Office with your identity card.

Please inform the Board immediately if:  
- any of the above particulars is incorrect; and  
- there is a change in your correspondence address. (Except for the Half yearly Statements of Account, which are sent through your employer, the Board will send future correspondence with you to this address).

◀ In the 1990s, the YSOA included the addition of investments made by members in schemes such as the Basic Investment Scheme.



Source: CPF Board

▲ The YSOA was enhanced in 2020 to provide better insights into CPF balances and transactions.

**CENTRAL PROVIDENT FUND BOARD**

TEO TONG HO

SINGAPORE

CPF STATEMENT OF ACCOUNT

STATEMENT PERIOD: JAN TO DEC 2005

TRANSACTION MONTH CODE	FOR MONTH/ YEAR OF	REFERENCE	ORDINARY ACCOUNT \$	SPECIAL ACCOUNT \$	MEDISAVE ACCOUNT \$
1 JAN	BAL		88,826.02	-47,847.79	31,706.47
JAN	SWF		16.78-		
YFR			1,206.47		1,206.47-
MSH	JAN2005		785.00-		
CON	DEC2004	A	2,971.10	799.90	
FEB	MSH	FEB2005	785.00-		
MSH	CON	JAN2005	1,593.46	464.54	132.00-
MAR	MSH	MAR2005	785.00-		
CON	FEB2005	A	4,058.37	1,092.63	
APR	SWF		18.80-		
MSH	APR2005		785.00-		
CON	MAR2005	A	1,300.00	350.00	
MSH	MAY2005		785.00-		
CON	APR2005	A	1,300.00	350.00	
SPS			144.00-		
ENW			359.02		
JUN	MSH	JUN2005	785.00-		
CON	MAY2005	A	1,143.53	361.45	
ENW			300.00		
ENW			88.00-		
JUL	ENW		18.80-		
MSH					72.00-
MSH	JUL2005		785.00-		
CON	JUN2005	A	902.00	350.00	400.00
AUG	MSH	AUG2005	785.00-		
CON	JUL2005	A	900.00	350.00	400.00
SEP	SPS		202.80		
MSH	SEP2005		785.00-		
CON	AUG2005	A	960.00	373.33	428.66
ENW			3,004.58		

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Check with the Director.

Please report the Board immediately if any of the particulars stated in this statement is incorrect. Nomination forms received and processed after 31 October 2005 will not be reflected in this statement. Attachments shown are consolidated figures for the entire account for September 2005.

◀ The new millennium saw the return of yearly statements. They were printed in monochrome for environmental purposes and included a barcode for easier sorting and identification.

# ELECTRONIC STATEMENTS



▲ The PAL-Internet interface greeted users when they logged in to check their account balances. (Source: CPF Board)

December 26, 1997 will always be a memorable day for Mr Ng Hock Keong, Deputy Chief Executive Officer (Infocomm Technology & Digital Services).

Not because it was Boxing Day, but because it was the day the CPF Board launched electronic

statements on its website, also known as CPF PAL-Internet. For the first time, members could view their Statement of Account online.<sup>1</sup>

“We thought that one day after Christmas would be a good day (to launch),” he said with a laugh.

Expecting low traffic due to the festive season, Mr Ng was shocked by the number of visitors to the website on the day of launch. As many as 20,000 members visited the site, which overwhelmed the system and caused it to crash.

Mr Ng, who was then-Assistant Manager (Support Information Systems), worked quickly with his team to upgrade the bandwidth of the site to accommodate more users.



But demand was so strong that they had to upgrade it twice, he recalled.

Six years later, on March 1, 2003, the CPF Board implemented a personal authentication system for Singapore, now widely known as Singpass.

Today, checking CPF transactions and contributions is an easy three-step process: visit the CPF Board's website, log in with Singpass, and view contributions and balances.

Individuals can also log in using the CPF Mobile app to check their contributions and balances in a matter of seconds.

This digital transformation has dramatically increased accessibility and convenience. From 5.4 million digital enquiries and transactions in 2003 when Singpass was first implemented, the number has since soared to 115.8 million in 2024.

◀ The entrance of the PAL Lobby at Admiralty MRT station (Source: CPF Board)

The solution was the supercomputer, a high-performance computer that used multiple systems to solve complex problems. It was a relatively new invention from the United States at that time, used mainly by a handful of Government or large organisations for heavy-duty research from space programmes to missile defence.

Mr lau, then-Director of Manpower and Head of Data Processing, who eventually became General Manager of the CPF Board from 1973 to 1980, was tasked with sourcing the right supercomputer for the CPF Board. “We called the guys who sold computers in for a chat – IBM and ICT,” he said.

After much internal discussion and debate, the CPF Board eventually settled on IBM, also known as the International Business Machines Corporation. In 1962, the CPF Board purchased the IBM1401 that was designed to process data stored on punched cards.

This particular supercomputer was becoming popular. It was known as the mainframe for the masses due

to its affordability and accessibility, as it was smaller in size and could typically fit into an office space.<sup>2</sup> Soon, it was used in organisations across the world, from processing legal documents and crunching data to printing on cheques.

The media also published news reports about the prowess of these supercomputers.

“

The card reader-and-puncher is capable of reading up to 800 cards per minute. The printer has a 600-line-per-minute alphanumeric printing rate, and a 1,285-line-per-minute numerical printing rate.”<sup>3</sup>

*The Straits Times, 1963*

At the CPF Board, it would replace the existing book-keeping machines, which had limited programmability and could only

► A photo of the CPF Board management and staff in the early years of the agency. (Source: CPF Board)





◀ Parts of the IBM1401 Data Processing System being lifted through the window at the CPF Board headquarters at 79 Anson Road. (Source: CPF Board)

perform simple tasks. In turn, it would not only reduce the tedious and endless process of paperwork, but also greatly reduce employee workload.

In September 1963, after almost a year of waiting, the IBM1401 system arrived in Singapore. The first order of business at the CPF Board, which had since relocated to 79 Anson Road, was to get the huge crates of heavy computer components into their office.

But the crates were too big to fit through its front doors. Eventually, a crane was deployed, and workmen were tasked to create a makeshift entrance – courtesy of a widened window on the third floor of the building.

Housing the supercomputer, which was approximately four times the size of an office filing cabinet, was another challenge, recalled Mr lau. “It was a huge and extremely hot (system). Together with a huge card reader for our punch cards and line printer, it took up quite a big room,” he added.

The room needed to be air-conditioned and the CPF Board even elevated the flooring level to accommodate the large amount of computer cables. “We actually had to build the wooden platform to put the computers on top,” he said.

With the supercomputer, member contributions, which had previously been manually typed by book-keeping machines, were now stored on punched cards. Each tiny card, which was peppered with tiny rectangular holes and measured approximately 18cm by 8cm, could store up to 80 bytes of information, a phenomenal feat at the time.<sup>4</sup>

## **THE START OF DIGITALISATION**

Mr Poo See Chye, who was part of the pioneer batch of employees at the CPF Board, recalled using the IBM1401. “We prepared about 10,000 punch cards each day and the machine would read them,” said the former Senior IT Consultant.

That was how members’ CPF account balances were updated. When the process was completed,

the data was encoded onto spools of magnetic tape and subsequently reused.

The machine also made it easier for the CPF Board employees to “search for a particular member’s balance,” said Mr Poo, whose job became easier as he no longer had to record and calculate contributions manually.

But it still took time, as the machine “searched the tape sequentially, so it could take a very long or short time depending on whether the record was near the start or the end of the tape,” he added.

Employees also had to be careful not to drop the tray of punch cards, he warned. When that happened, they would have to be re-sorted with a card sorter.

Although the IBM1401 was eventually replaced by more powerful computers and systems, it laid the foundation for the CPF Board’s subsequent digitalisation journey.

The incorporation of the IBM1401 was a pivotal moment in the CPF Board’s history, coinciding with a period of momentous political change in Singapore.

In September 1963, Singapore became a part of Malaysia. But a mere two years later, it left Malaysia and became independent on August 9, 1965. For the young nation, the immediate concerns were more of economic survival than social security.

The CPF Board, now almost a tween, was also experiencing the pangs of puberty and change – along with the new country. By 1968, the CPF system would be expanded beyond a retirement savings scheme. This time, it would take on a supporting role in housing a nation.

“

Looking back, I think it was rather amazing how that odd-looking, transistorised box could have spawned this fearsome industry.”



**Mr Robert Lau**, former General Manager of the CPF Board, reflecting on the exponential growth of the IT industry.

◀ Source: National Library Board

# FROM SUPERCOMPUTERS TO REVAMPED CODES: Our Digitalisation Journey

**W**hen personal computers were first introduced to the CPF Board's employees in the early 1990s, there was more scepticism than excitement. Boxy and bulky, they were foreign and confusing to employees who were long accustomed to mainframe dumb terminals, pen and paper.

"We even had to teach our users how to operate the mouse," said Ms Ivy Ho, who joined the CPF Board's IT department in 1990.

As she helped her colleagues get acquainted with the new technology, she recalled receiving many enquiries about how their typed text disappeared when the text scrolled beyond the visible screen area.

To help them understand that the text was still present but simply out of view, she came up with an analogy

using MRT trains. She explained that the screen was like a station platform; as you typed, it was like trains (text) arriving. When the platform fills up, older trains (earlier text) move out of sight but are still on the track, just as typed text moves off-screen but remains in the document, accessible by scrolling.

"I have to use a lot of analogies like this because they couldn't grasp how (the new technology) worked," said the current Director of the Accounts Information & Services department.

After the initial shock passed, and employees got the hang of the computers, technology quickly proved to be a game changer.

## THE Y2K BUG

A technological crisis was looming as the world approached the year 2000.



◀ CPF Board employees learning how to use computers to tabulate member contributions and statements. (Source: CPF Board)



◀ CPF Board employees using an early telecommunications system in the 1980s. (Source: CPF Board)

Known as the Y2K bug, it arose due to concerns regarding the storage of calendar data. To conserve data storage space, calendar years were often indicated by two digits rather than four. As a result, when the 21<sup>st</sup> century rolled around, there was a real risk of computer systems failing to distinguish 1900 from 2000.

It was a global problem, with corporations worldwide scrambling to fix their systems to avoid the error and potential disruption. Former employee Mr Lim Chong Lin, who joined the CPF Board in 1998, was brought into the team tasked with conquering the bug.

Working to change the abbreviation of years from two digits to four digits in the CPF Board's systems to ensure smooth operations into the 2000s was an experience to remember. Several rounds of pre-emptive tests were also done prior to the big day.

The former Director of the Retirement Decumulation Systems Department remembered reporting to the office at 10pm on December 31, 1999 with the rest of the IT department to shut down the systems. When the clock struck midnight, the team got to

work. "We did various tests together until every system was reported (and accounted for)," he said.

By the time all systems were up and running as per normal, the sun was high in the sky. Despite the sleep deprivation, the then-fresh graduate was thankful for the chance to be involved in the project. "I only slept at noon on the first day of the new century," he recalled with a laugh.

Recalling that night, Mr Wu Wai Mun, who was then-Deputy General Manager of Computer and Collection, exclaimed: "Nothing happened!" He credited this to the CPF Board's culture of always being prepared. "Everybody got so excited. The systems were thoroughly changed and tested. We sailed through the Y2K event."

### **FUTURE-READY CODE**

The journey to digitalisation is constantly ongoing.

In 2016, the CPF Board laid the foundation for a digitalisation project that would phase out the computer language COBOL and convert it

to Java. The project had three key objectives: reduce time to market, improve user experience, and enable the tech capabilities of employees.

It took eight long years, with the project executed across three phases. It was a long march to migrate 34 million lines of COBOL code to Java and the project was completed in 2024. Then-Chairman Mr Chiang Chie Foo (2013–2021), who was a major sponsor for IT transformation, stood by the team and their monumental undertaking of the project, which was mooted during his tenure.

“If we print the 34 million lines on A4 papers with 12-point font and line them up from end-to-end, we are talking about a paper trail of 168,500 metres. That means you can lay the papers starting from Changi Airport, go round the whole of Singapore, and back to (our) Novena headquarters,” shared Mr Ng Hock Keong, Deputy Chief Executive Officer (Infocomm Technology & Digital Services).

It was not easy. The project almost came to a standstill during the COVID-19 pandemic. The project team resorted to remote working

and extended the resources to two development centres overseas. The operating model was eventually expanded post-pandemic, and today, four offshore development centres have been set up to meet the IT resource crunch.

But the most nerve-racking moment was when the CPF Board team had to brief then-Prime Minister Mr Lee Hsien Loong on the project’s status in January 2020. He asked very technical questions, from architecture to storage to application design.

Thankfully, the session wrapped up well, with Mr Lee approving the team’s work with a big smile. Now that the project was completed, the next goal was to maintain the fruits of their hard work.