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The material in this book has been compiled from historical material, interviews with key people and material that has been previously published. Every effort has been made to make this book as accurate as possible. However, there may be typographical and/or content errors. Words such as anticipates, believes, expects, estimates, intends, plans, projects and similar expressions that indicate future events and trends identify forward looking statements.

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# Fujitsu in Australia and New Zealand

### The First Forty Years

A story of innovation and evolution, from brash newcomer to industry leader

# Fujitsu in Australia and New Zealand The First Forty Years

Fujitsu Australia New Zealand commissioned this publication from philipson.info to commemorate the 40th anniversary of the company in Australasia on 21 June 2013. philipson.info principal Graeme Philipson is a 30 year veteran of the Australian ICT publishing and market research scene, and has been following Fujitsu in the region for all of that time.

In 1987 he was one of the first Australian journalists invited to visit Fujitsu's headquarters in Japan. In 1989 he wrote a book, 'Mainframe Wars' which covered Fujitsu's and Amdahl's rivalry with IBM in enterprise computing. He has maintained a close contact with Fujitsu ever since, and was the developer of the methodology used for Fujitsu's Global ICT Sustainability Index.

One of Australia's leading publication design specialists, Nick Dale of Big Bang Design Group, oversaw the publication's layout and design. His substantial skills are evident on every page.

Well-known Australian ICT journalist Beverley Head wrote many of the case studies, as did Fujitsu Australia's long time PR consultant, Shuna Boyd, and her associates Cathryn van der Walt and Kate Smith (who also did a first rate proof reading job). Leading New Zealand ICT journalist Chris Bell contributed the Kiwi pages.

Fujitsu Australia's Collin Duff-Tytler managed the project and liaised between the production team and Fujitsu management. Fujitsu's Kerry Gough and Linda Howse gathered material and tracked people down. Fujitsu's Craig Baty's excellent Master's thesis on Fujitsu's early days in Australia was a valuable resource, and his advice was of great benefit.

Many present and former Fujitsu employees gave freely of their time to ensure the content was accurate and com-

prehensive. Special thanks to former MDs and CEOs Mike Rydon, George Ranucci, Neville Roach, Philip Kerrigan, Rod Vawdrey, and current CEO Mike Foster, all of whom agreed to be interviewed for the project and provided extremely valuable insights. George Ranucci's comprehensive file on Fujitsu Australia in the 1980s was invaluable.

Special thanks to Philip Bailey, a long-standing employee of FANZ's, who contributed his recollections of the early days. Phil Power, Peter McFarlane and Phil McCormack also all made valuable contributions. Sarah Niblock, Catherine Cummings, Mike Inge, Clare Burden, Jo Davies, Paul Mountford and Ken Kanosue made many much needed corrections. Thanks also to Fujitsu Australia's Rhona Gaughan, Roz Laging, Robert Lislois, Linda Tate, Ros Johnston, David Ibrahim, Cara McKenna and Justin Mitchell. And special thanks to Tak Watanabe and his evening calls from Tokyo.

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NZ contributor Chris Bell wishes to thank the many past and present Fujitsu employees, as well as those who joined the company from ICL, who assisted in the research for the New Zealand sections. Some served 40 years or more with ICL and Fujitsu. Special thanks to Managing Director Jo Healey and Executive Assistant Michelle Henderson. Generous with their time, reminiscences and industry anecdotes were Stan Baker, Steve Brunt, David Bodenham, Richard Hawkins, Malcolm Martin and Bob Whalley.

Thanks to all.

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### Foreword

by Senator Stephen Conroy



**IT IS WITH GREAT PLEASURE** that I write this foreword celebrating Fujitsu's 40 years in Australia.

In an industry where the pace of change is so rapid, it is a testament to Fujitsu's strength that it has not only lasted so long, but has grown and prospered over the years.

Fujitsu came to Australia in 1973 as an unknown Japanese company.

It quickly established itself as a force in the local industry, selling a range of computers, software, and manufacturing telecommunications equipment. It is also an export success – its software development facilities have taken Australian software to the world.

As the National Broadband Network continues to roll out across Australia, I am sure that Fujitsu will continue to adapt to take full advantage of what the NBN has to offer.

Fujitsu is already doing this in the area of cloud computing, investing in Australian data centres and cloud infrastructure.

As the ICT industry evolves, it is companies like Fujitsu who will ensure that new technologies and new ways of doing things are introduced into business and into our society.

I congratulate Fujitsu on its success, and wish the company, its staff and its customers every success in the future.

### Regards

### Stephen Conroy

Minister for Broadband, Communications and the Digital Economy



### THIS YEAR FUJITSU TURNS 40 IN AUSTRALIA.

I'm fortunate to be writing this as the CEO at this important point in our history, but I would not be here without the hard work and foresight of all the people who have worked for Fujitsu over the last 40 years.

When the company first opened its doors in Australia it was relatively unknown in the industry. Through hard work, innovative thinking and a dedicated team the company has grown to be the third-largest ICT Company in Australia and New Zealand.

As you turn the pages of this book you will see that we've been on an incredible journey over the last 40 years. We started with mainframes in the 1970s and moved with the ICT market through the age of the personal computer, client-server computing, and right through to being a leader in cloud services. At every milestone in the ICT industry over the last 40 years Fujitsu was there.

Although our history spans a number of distinct periods characterised by different business models and products, one thing that remains consistent is our focus on our customers. You will see from this historical record that a key factor of our success is in being able to understand what our customers want and being able to deliver on our promises.

I hope that you will enjoy reading about the evolution of this great company. Fujitsu's 40 years marks a milestone for the company and for the ICT industry in Australia and New Zealand. We look towards the next 40 years.

**Mike Foster**, Chief Executive Officer Fujitsu Australia and New Zealand

## Timeline

Year	MD	Company	Deals	Products	Acquistions / Subsidiaries
1973	Mike Rydon FACOM Australia's first Managing Director	FACOM Australia begins trading on 21 June			
1974					
1975					
1976			JUNE 1		
1977					
1978			FACOM wins ABS tender – IBM challenges result and tender process begins again	FACOM releases M Series IBM-compatible computer	FACOM
1979			FACOM wins the re-let ABS tender and is established as a major player in Australia		

Year	MD	Company	Deals	Products	Acquistions / Subsidiaries
1980		FACOM New Zealand office established	FACOM wins Telecom account with Amdahl hardware	FACOM first to introduce colour terminals in Australia and New Zealand	
1981			AND THE PARTY OF T		
1982					
1983	George Ranucci becomes Managing Director				
1984					INSTU-
1985		FACOM changes name to Fujitsu Australia, marking the 50th anniversary of Fujitsu Japan			of the second
1986			Fujitsu Australia sells supercomputer to ANU, the first Fujitsu supercomputer supplied outside Japan		
1987	10.0				
1988		Fujitsu Australia moves head office and data centre to Chatswood	Fujitsu gives ANU a prototype parallel processing computer as part of a joint research program		
1989	Neville Roach becomes Managing Director			Fujitsu and IBM finalise dispute over M Series use of IBM operating system	Fujitsu Australia Software Technology, the first Fujitsu software development centre outside of Japan
1990			Fujitsu wins Optus contract to supply and build national fibre optic backbone		Fujitsu acquires 80% of ICL

Year	MD	Company	Deals	Products	Acquistions / Subsidiaries
1991					Fujitsu Australia establishes Services business
1992		Fujitsu establishes factory in Dandenong to manufacture telecommunications products	Fujitsu wins Westpac maintenance contract from IBM		Fujitsu establishes joint venture company with Bell Atlantic Business Systems known as FBA
1993	<b>iCL</b>				Fujitsu Australia integrates ICL as result of global acquisition Fujitsu acuires 67% of Logical Solutions
1994					
1995					
1996					
1997					Fujitsu acquires Southmark (formerly Co-Cam) and remainder of Logical Solutions and merges the two companies to form Southmark Solutions
1998		Fujitsu Australia relocates to new facilities at North Ryde Technology Park		HED	
1999					Amdahl subsidiary absorbed into Fujitsu's Solutions business
2000	Phil Kerrigan becomes CEO				

Year	MD	Company	Deals	Products	Acquistions / Subsidiaries
2001		Fujitsu opens \$5 million Fujitsu Microsoft Solution Centre at Sydney HQ			
2002					Fujitsu buys multi-million dollar Internet Data Centre (IDC) from Exodus
2003	Rod Vawdrey becomes CEO			Fully	
2004				SILIZO	Fujitsu acquires Australian operation of Atos Origin. Fujitsu absorbs DMR
2005					
2006					
2007			No.		Fujitsu acquires Infinity Solutions in New Zealand
2008	117				
2009	KAZ				Fujitsu acquires KAZ and Supply Chain
2010					Fujitsu acquires TELentice IP
2011	Mike Foster becomes CEO		NBN selects Fuitsu as new developments deployment partner	Fujitsu rolls out world leading cloud computing network	
2012			ANU selects Fujitsu for National Computational Infrastructure		
2013			Fujitsu wins multi-million dollar DFAT passport contract		

### 1973 to 1985

### The FACOM Years

Fujitsu began its life in Australia as FACOM (Fujitsu Automatic Computer) in 1973. The world was a very different place then. In the computer industry IBM was undisputed leader. It had two classes of rival – a group of mainframe vendors known as the BUNCH (Burroughs, Univac, NCR, Control Data and Honeywell) plus British company ICL, and some new minicomputer companies, the best known of which were Digital and Data General.

An operating system called Unix had come into existence three years earlier, with some of its first pioneers in Australia. In Seattle a high school kid called Bill Gates was starting to fiddle with computers. PCs didn't exist.

Into this alien environment came an upstart Japanese newcomer.



In the early 1970s, as part of its internationalisation strategy, Fujitsu was looking to expand beyond Asia. Australia was selected as the test Western market, to be followed by expansion into other countries.

FACOM and its first managing director Mike Rydon made a big impact

**AUSTRALIA, THEN AND NOW**, is regarded by many global suppliers, and not just in the ICT industry, as the ideal test bed for new products and strategies. It is an advanced English speaking country, and it is large enough to be significant but small enough that it is not an expensive market to enter. It is also relatively isolated, so if mistakes are made they can be more easily hidden from the rest of the world.

Fujitsu's entry into Australia remains one of the best examples of an ICT vendor using Australia as a test bed for the rest of the world. Fujitsu also later chose Spain for similar reasons, to help it gain experience in the European and Latin American markets.

Fujitsu entered the Australian ICT market via the establishment of a partnership which would provide it with local marketing expertise, financial backing and data processing credibility. This partnership consisted of Fujitsu, the Bank of Tokyo and Bank of NSW (now Westpac), which provided local financial arrangements; Computer Manufacturers of Australia (CMA), an Australian data entry equipment company which provided local marketing expertise; and Nissho lwai, a Japanese trading house which provided shipping and mercantile experience.

From a firm Australian beachhead...

### Giant killer Facom looks to lift its profit performance

A NEWCOMER to any sector of Australia's industrial and service industries can, with the help of a patient, deep-pocketed parent and an aggressive sales approach, find a market for its products.

BUT even the most generous of parents expect that their offspring will one day stand on its own feet and start to show gratitude for its existence in the form of an adequate return on funds employed.

Facom Australia, the local subsidiary of the Japanese electronics and telecommunications group, Fulisty, has been operating in Australia for nine years and in that time has captured some prime contracts from older, more established com-

is not in the charity business," he said.
"We must establish our

solves as, a viable commercial entity. We have to make a profit. How che are we in be assessed? For heaven, sake, we are not on the dole."

we are not on the dole."

Before Facom began in Australia it conducted a market survey which indicated there was space for in the medium to upper end of the spectrum but, when it set up operations its first sales drive was for a silee of the medium to lower market.

It brought in equipment with a price tag ranging from \$75,000 to \$500,000 and, in



distorted by the booking. In that year, of the controversial Anstralians Bureau of Statistics order, which Facom was awarded over the beads of biggor, long established rivals.

bigger, long established rivals.
It also includes \$6.1 million
in sales of Amdahl equipment.

Excluding the ABS and Andahl sales, the figure for the year to March 31 was still aone 34 times the previous year's performance.

The sales growth of the company since its inception is impressive.

At the end of March, 1973 it had sold two systems worth a total of \$316,000.

A year later the number of systems sold had rises to 11 and, by the end of March, 1975 the figure was 20 and their combined value was \$3.2 million.

Two years later Facom had sold 50 systems worth slightly

air established client list.

"We also have a proline, in the M series, wigives as a competitive edgevistment protection the
upward mobility of
software and peripheral ee
ment and an application in
face to industry standard

gram software."
What he meant was the equipment, available its parent Fujius — an legrated telcommunica and electronics firm base Japan — and through a tributorship arrangement the United States based dahl group, was among most advanced and effective in the world.

The upward mobility software and perinple equipment enabled clients modernise their system wout becoming involved heavy retraining programs expensive changes to

Fujitsu's entry strategy was unique for any overseas company, especially a Japanese one, as it employed local management, staff and skills to run the business ...

RIGHT Then as now, Japan's biggest export to Australia was cars. Toyota is a long time Fujitsu Australia customer



The operation was initially called FACOM Australia Limited (FAL) — FACOM being an acronym for 'Fuji Automatic Computer'. The name was not changed to Fujitsu Australia until 1985. By 1974 it had 150 employees.

FACOM Australia initially operated as part of Computer Manufacturers of Australia (CMA), which held a minor shareholding in FACOM when it first set up in Australia. Despite market research that indicated FACOM should sell into the high end of the local computer market, it followed the same strategy it had successfully used in Japan selling the small Fujitsu 230 mainframes to the low end. The approach failed.

FACOM subsequently refocussed and the workforce re-skilled and reduced to about 90 staff. Fujitsu Japan acquired the shareholding of CMA, Westpac and Bank of Tokyo, and Australia became a fully owned subsidiary. Mike Rydon, formerly of IBM South Africa, was invited to take the position of Managing Director and the organisation expanded rapidly throughout the major cities. By 1983 it covered all Australian states, Papua New Guinea and New Zealand.

From the very beginning of his leadership Mike Rydon insisted that the local business be guided and driven by the

concept of creating strong customer and business relationships. During a visit to Tokyo head office before accepting the position of managing director, Rydon stipulated to Fujitsu Japan that the Australian operation "was not a Japanese box export business. It was not something where you produced beautifully engineered products and landed them on the quay and the local natives ran off and put them into the palm trees.

"FACOM Australia was a skill-intensive, personal relationship driven long-term liaison business. You had to do this on the ground with local people who could be respected and accepted by people in the driving seat area of business." To that end, Rydon ensured that all communication, both within Australia and with head office, was to be in English.

Fujitsu's entry strategy was unique for any overseas company, especially a Japanese one, as it employed local management, staff and skills to run the business, as opposed to the traditional approach of running everything from Japan, and sourcing the most senior people in the foreign operation from the Japanese head office. This enabled the Australian operation to respond to local situations with almost complete autonomy, but with the full

support and backing of head office. This situation is still a major characteristic of Fujitsu's local operations today.

When it started in the early 1970s FACOM Australia had no reseller agreements and was completely on its own. But it did have a growing base of loyal customers, and a slowly increasing market share. It relied on finance from Fujitsu Japan (in the form of a loan that had to be paid back on commercial terms) until 1983-84, when it announced its first profit of a little over \$1 million.

Things were not easy for the newcomer. Existing Australian ICT suppliers were actively hostile towards the company, and took every opportunity to aggressively attack its small base and discredit it in the ICT community. This attitude towards Fujitsu was not confined to Australia. Each of these companies were affiliates or subsidiaries of large US firms, and they quickly recognised that this Japanese company was potentially a major threat, and not only in the Australian market.

If Fujitsu could be successful in the Western test-tube of Australia, it could leverage this success and experience and start attacking their home markets. Its competitors' fears were justified, because that is exactly what happened.



## Fujitsu was a pioneer of the Japanese computer industry. But its origins go back much further.



"Fuji" is formed from the first syllables of Furukawa – Fu – and Siemens ("Jimens" in Japanese) – Ji. The young company grew by supplying the growing Japanese empire in East Asia with specialised electrical equipment. The Great Kanto earthquake of 1923, which virtually destroyed Tokyo, was the impetus for the rebuilding of the entire Japanese telecommunications system. The Japanese Government took the opportunity to replace all manual telephone exchanges with automatic switching systems. Fuji Electric imported Siemens' H-type exchanges and telephones to meet the demand.

Fuji Electric built on its experience in increasingly sophisticated electrical systems and anticipated the future demand





FAR LEFT Fujitsu's first logo
LEFT Early Fujitsu
telephone switching
equipment
BELOW Fujitsu's first
manufacturing facility
in Kawasaki



for telephones and related equipment in Japan. In the mid 1930s Fuji Electric signed an agreement to manufacture Siemens' telephone switching equipment for the Japanese market. As a result on 20 June 1935, at Kawasaki near Tokyo, a telecommunications subsidiary was formed, Fuji Tsushinki, which translates as Fuji Telecommunications. In 1967 the name was shortened to Fujitsu.

Fujitsu moved into computer systems in the 1950s and quickly became a major innovator. Fujitsu's first computer, the FACOM 100, was developed in 1954 (FACOM stood for 'Fuji Automatic Computer'). It started mass production of transistors in 1960, and in 1961 released the transistor based FACOM 222. Its 1965 FACOM 230-10 is credited with starting the computer boom in Japan, where over 1000 were sold. In 1968 Fujitsu released the world's first entirely Integrated Circuit computer, the FACOM 230-60. In the same year it overtook NEC and Hitachi to become Japan's leading computer company. Fujitsu opened its first international subsidiary in the USA in 1968.

It was the first step in the company's international expansion – it now operates in more than 100 countries around the globe. Fujitsu made a strategic investment in IBM mainframe compatible vendor Amdahl in 1971, which helped it design and build its own FACOM M series mainframes, first released in 1974. These machines competed against IBM's largest mainframes, leading to a protracted legal battle between the two companies which was not finally resolved until 1997. In 1981 Fujitsu entered the PC market with the FM-8, which was the first PC to feature 64KB of RAM. In that year it also formed an alliance with British computer manufacturer ICL, buying 80% of that company in 1990 and all of it in 1992.

In the 21st century Fujitsu is the world's third largest ICT systems and services company, after IBM and HP, and the largest in Japan. It has 170,000 staff and annual revenues of over \$50 billion. Fujitsu's customers include nearly half the Fortune Global 500.

The FACOM 230-60, the first computer in the world to be made entirely with integrated circuits



The FACOM M-200





## Dr Philip Bailey is a Fujitsu Service Director. He joined FACOM Australia on 21 January 1974 as part of the first batch of Trainee Systems Engineers. He has unique recollections of the early days.

**I WAS HIRED INTO FACOM AUSTRALIA** directly from the University of NSW, following campus interviews I attended in September-October 1973.

Upon successfully navigating the selection process, which included a three hour IT aptitude test and a two hour personality test with WD Scott, I was brought to the North Sydney offices at 41 McLaren St and offered the job with my very first career employer.

I was introduced to Arnold Brown, FACOM's National Sales Manager, who was ex IBM Canada. I had my first Japanese meal at the Suehiro Restaurant in Walker St with Arnold, to celebrate the job offer and my acceptance. I recall particularly the raw egg in the Sukiyaki was a bit of a novelty to my country NSW tastebuds.

I was one of nine new trainees. By any measure, this was an incredibly bold step for FACOM to take - a company with less than 30 staff in the Sydney office in January 1974 hired a trainee intake making up a quarter of the workforce. The only female in our group, Inese Jurevics, was also the sole trainee from the FACOM Melbourne Branch, then based at 71 Queens Road, South Melbourne. All the rest were Sydney-based. Another six trainee Systems Engineers were hired in 1975.

A particular high point in mid-1974 was when our internal phone list in the North Sydney offices was forced to go portrait rather than landscape, as there were too many names to fit on one A4 page. We were growing!

FACOM Australia was formed as a corporate entity on 20

June 1972, a very auspicious day as this was the parent company's Foundation Day in 1935. The company then opened for business on 20 June 1973, with the very first employee Akira (Tommy) Suzuki, on secondment from Fujitsu Japan's Overseas Marketing Division.

Tommy was with FACOM Australia for four years, during which time he and his wife Sukiko had their two daughters, true Aussies! He went on to be based in Spain (where he changed his name to Antonio) and later back here with Australia for two more secondments. Tak Watanabe was Tommy's boss and often visited us from Japan. He too was then based in Australia for a number of years.

The first local hire at FACOM was Graham Keen, a systems engineer, whose first role was as lead programmer for the applications being developed for Sydney Hospital. Another early starter was Bob Dawe, who joined in January 1974. He headed up the Customer Engineering group, a role he performed for 20 years, later becoming a Director of Fujitsu Australia. Deric Webb (SE), Bruce Collins (CE) and Bob Atken (sales) all joined FACOM in Brisbane at this time and stayed with Fujitsu for many years.

Glynne Attersall (previously with Olivetti) was a young sales representative in the Sydney office. He went on to a long career up to his retirement from Fujitsu in the late 1990s. Also in Sydney, Ted Bourke (ex-Honeywell) was the NSW SE Manager, joining early 1974, later going on to a career as IT manager at medical insurer MBF in the late 1970s until his own retirement in the 1990s. MBF was a key mainframe customer of Fujitsu's through three generations of equipment.

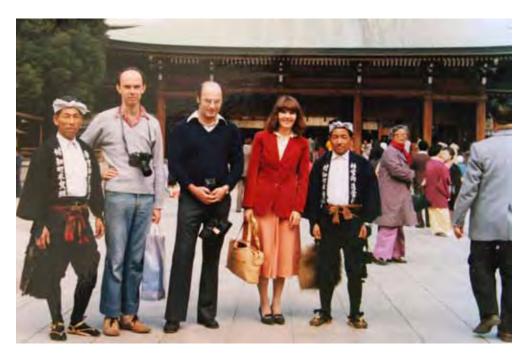
The reasons for the resource commitment to the 1974 trainees become immediately apparent. We were selling the 230 series mainframe equipment; which was sold inclusive of all the systems software which allowed it to work. To entice the customers to buy our offerings, we also threw in various applications we developed – for free.

My very first assignment was as an account SE for a computer bureau in country NSW, writing Cobol application programs for stock control, accounting and payroll applications. All the trainees were put into various teams as we all wrote code for new customers such as Computer Fiscal Services (a Tamworth-based bureau), Sydney Hospital, Allied Mills, Young and Green Motors in Newcastle, among others.

The ground floor office in McLaren St had our computer room, with a FACOM 230-15 for prospective customer demonstration and benchmarks, as well as providing our own IT Processing. I recall being the application developer responsible for maintaining our General Accounting System, and I was often called in on evenings or weekends to fix reporting anomalies or bugs in the application code.

The 230-15 mainframe was a formidable beast, boasting 8KB memory (upgradeable to a stellar 32KB), and removable Disk Cartridges holding an incredible 2.5MB of data. Was there no end to its power? No, there was more – a 131KB drum facilitated paging of memory to allow large programs to run efficiently. Input was optionally paper tape or 80 column punch cards. These configurations would sell for \$100K-\$200K, in 1974 dollars.

Graham Keen, Philip Bailey, Barbara Falkland and friends



The Trainee Class of 1974 had nine attendees. (L TO R) Steven Yuen, Inese Jurevics, John Radik, Michael Makay, Peter Kelo, Geoff Moss, Philip Bailey, Mike Patsalos-Fox and (not in photo) Bill McCabe.





Japanese trainer Yuki Hagihara and Phil Bailey in front of the FACOM Centre in 41 McLaren St, North Sydney in 1975

Apart from programming, project management and application business analysis, the FACOM systems engineers were the technical relationship points for our customers. A predecessor of the current service delivery management role, the account SE was responsible for customer satisfaction, identifying new sales opportunities for the sales force and following up all technical questions and issues with the FACOM back office and often also with specialists from Fujitsu Japan. In most cases, the SEs were the primary pre-sales technical resource, designing and running benchmarks and drafting responses to customer RFPs for upgrades or new systems.

This was a hands-on time for FACOM. Managing Director, Mike Rydon (ex IBM South Africa) would attend sales calls with me and the sales representative (one such was Glynne Attersall) to press our case. One particular meeting went well past midnight in the customer's Tamworth computer centre as we hammered out the final contract details of the equipment upgrade they were purchasing. The MD was in the face-to-face negotiations.

Foundation Day 1974 was a particularly memorable occasion. The whole Sydney office (and the same in Brisbane

and Melbourne) went offsite for the afternoon and attended a series of speeches and a rousing rendition of the Fujitsu company song, with English song sheets provided for all to use. Subsequent Foundation Days were amazingly popular. I recall one colleague changing his annual leave plans so as to not miss this key event on the corporate social calendar. The Foundation Day address always included Fujitsu Japan messages or actual attendance of one of our directors from Japan to pass on news of the wider corporation. As the company grew it also served as the forum where all staff service awards were handed to individuals in person in front of the entire local team.

We were met with stiff competition from other IT companies at every turn. It seemed we were often being asked to respond to a tender request mainly so the prospect's long-term incumbent vendor would be forced to drop its prices from previously no-discount positions. I recall with glee a number of these situations actually leading to FACOM wins, despite the campaign starting with an entirely different agenda.

The reaction of the other IT vendors in the Australian market was dramatic. On many occasions competitors

would escalate the sale to the board of prospective clients, often finding a returned serviceman amongst the ranks, then attempting to play the anti-Japanese World War II card to have any decision to buy FACOM overturned.

Fortunately, our Chairman of the Board was Bill Bathgate, himself a returned serviceman and ex-Japanese POW, who proudly wore his RSL lapel badge to any board presentation he attended in support of our sales efforts. He totally deflated any efforts of our competitors to play this tactic, the most infamous example being the IBM attempts to interfere in the Australian Bureau of Statistics selection process in 1978.

From day one, the culture was a belief in ourselves – there was the market leader, IBM, and we were aiming at being number two in Australia, a point we made in most if not all pre-sales presentations to prospective clients. We seemed not to concern ourselves with Burroughs, ICL, Honeywell, Control Data and the others – they all had annual sales and market shares that made our sales achievements look like a rounding error in their results.

The mantra from the very early days was: "We are FACOM, we are unique. We have a Japanese parent company that is

### "They were heady days. It's hard to believe it's 40 years."



FACOM's logo

here for the long haul, and delivers on its commitments." It is interesting to observe that after 40 years and significant personnel turnover and changes of leadership since then, these aspirations and attributes still define our company today.

Another fond memory is of Charlie Rowley, our logistics manager. As each new customer order was confirmed, Charlie would hand-write a new line item on a large whiteboard in his office. Communication to the Fujitsu factory was via telex to the overseas marketing group in Tokyo, then to the Fujitsu factories building these mainframes to order. Charlie would track each order, adding entries on his whiteboard as the order progressed thru the factory, was shipped via sea to Australia, cleared customs, and was freighted directly to the customer's computer room, often built to specification to hold their new purchase.

Our attempts to get Charlie to move to a computerised logistics system fell on deaf ears. As FACOM's business grew, we were all intrigued how Charlie would cope once there were more orders than he had rows on his whiteboard. One Monday morning, we arrived at work to find Charlie had repositioned his whiteboard, put another on the wall board

beside it, thus allowing double the concurrent shipments to be manually managed.

Of course, technology changes and the upgrade path for Fujitsu's 230-15 and 230-25 computers, the 5 series, came along in 1976. We became more experienced in deflecting the competition's negative campaigns and new management forged improved directions and success. Frank Hayman and Bob Scott joined as National Sales and National SE Managers respectively (both from IBM Australia) and the company grew. Customers like MBF, Toyota, Alliance Finance and BNP Bank were among the nearly fifty 8-Series mainframes sold throughout Australia.

As the 1970s drew to a close, Fujitsu Japan's joint venture efforts with Amdahl had resulted in the development of the M-Series mainframes. While the Amdahl organisation focussed on offering its hardware running IBM's MVS and DOS/VSE, the M-Series offered as well an upgrade path to Fujitsu's current 8-Series customers, a major vendor in the Japanese domestic market, but with a foothold here in Australia, too. The new operating system to support the ex 8 series customers was called "X8" (or more formally, OSIV/X8),

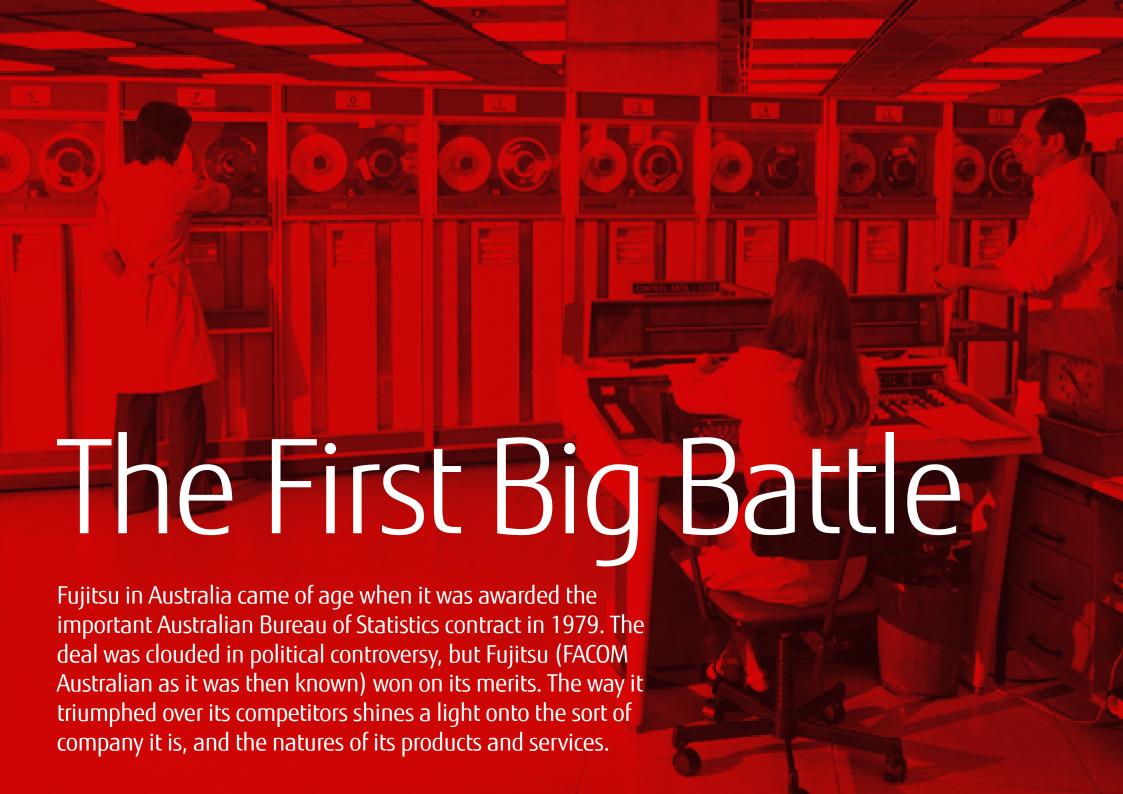
allowing compatibility for easy upgrade for customers with investment in their previous FACOM environments.

A new approach was planned for the X8 rollout in Australia. Previously, the approach had been to send Japanese software experts to Australia with a large shipment of Japanese language manuals, then suffer in the early months and years after a new product launch while document translation caught up. This time, FACOM sent both SE and CE contingents to Japan to attend formal courses conducted in English.

Upon their return to Australia, their role was to develop coursework and conduct training of the Australian workforce (and early customers) in the new software environment. In addition, FACOM gained valuable revenue performing the technical documentation translation from Japanese to English here in Australia.

Attending for the SEs were Graham Keen (our first FACOM Australia local hire employee), Barbara Falkland (Melbourne SE) and me, Philip Bailey (Sydney SE). The training was held at Fujitsu's Systems Laboratory in the Tokyo suburb of Kamata in November and December 1979.

They were heady days. It's hard to believe it's 40 years.



PREVIOUS PAGE The Control Data computer that FACOM replaced BELOW Malcolm Fraser's Computergate — no way out



AUSTRALIA IS FORTUNATE in having one of the world's best government statistical agencies. The Australian Bureau of Statistics (ABS) is also one of the world's oldest such bodies – it was first formed in 1905. It moved into the computer age in 1961, when it installed Control Data mainframes in its Canberra headquarters.

BY the late 1970s, after many upgrades, the original Control Data equipment needed replacing. The ABS had become a statutory authority in 1973 and its role was expanding as it gathered statistics on an increasing range of activities. In February 1977 the ABS went to tender for a replacement of its core computer equipment for census analysis, processing trade and financial statistics, and a complete renovation of the existing national network. The deal was worth more than \$17 million, one of Australia's largest ICT projects to that date.

The ABS received responses from Control Data (the incumbent), IBM, Univac, and Fujitsu. In May 1977 IBM and Fujitsu were shortlisted. At the time, Japan's reputation for production of goods such as televisions, automobiles, and steel had been well established, but there were questions

as to whether Japan had finally caught up with the West in computers, and it was common for Japan to lose in international competition in this arena.

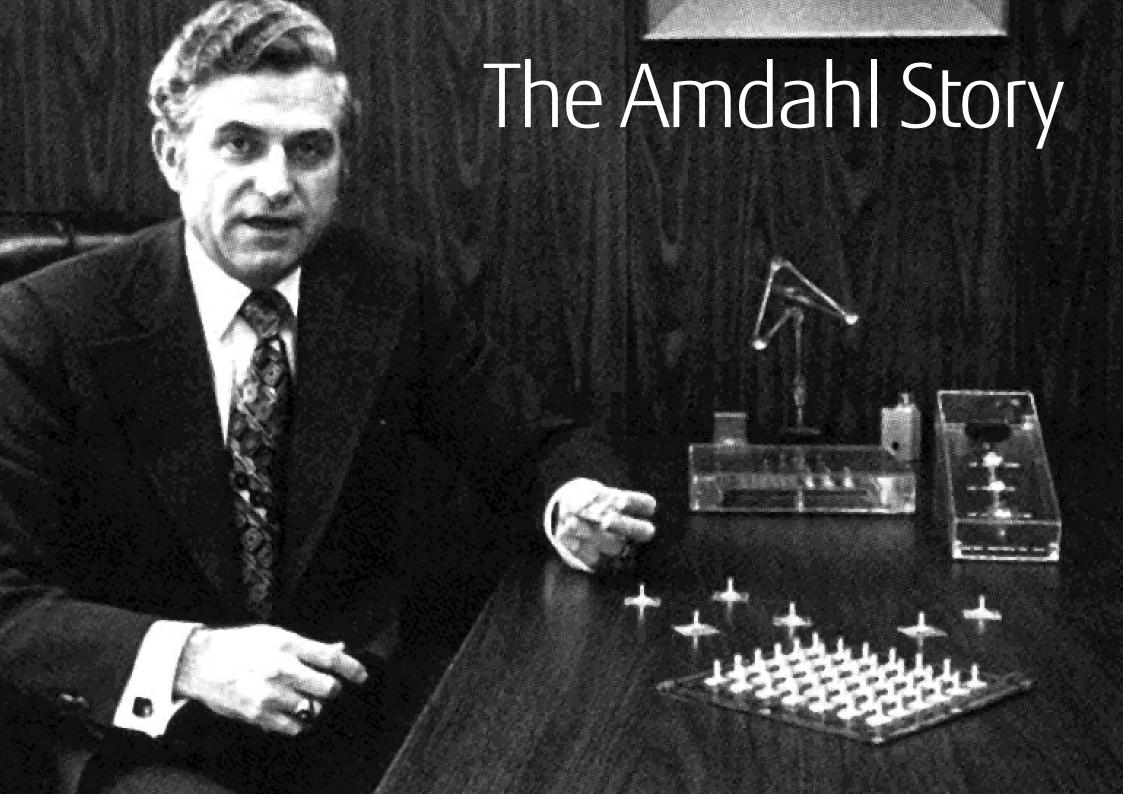
The ABS contract was a large deal on a global scale, and internally it was viewed as crucial to Fujitsu's establishment in a Western market. The ICT industry rumour mill began to suggest in late 1977 that Fujitsu was favoured over IBM to win the idea. But it also emerged that the Government had recommended that IBM be awarded the contract, despite it being more expensive.

This caused some controversy. Questions were asked in Parliament. Some people were even calling it 'Computergate', and Malcolm Fraser's government was forced to call new tenders, with the selection process overseen by an

independent arbitrator. Finally, in November 1979, Fujitsu was awarded the contract.

This was a major victory for FACOM Australia and Fujitsu worldwide, so much so that it formed the first chapter of Fujitsu Chairman Taiyu Kobayashi's personal memoir 'Fortune Favors The Brave – Thirty Years in Computers'. Not only had Fujitsu overcome the technical challenges of competing against IBM, it had also overcome the language barrier which had previously prevented Japanese computer systems from being accepted in projects of this size.

Fujitsu was now recognised in the Australian ICT market, and significant purchases by other major Government departments and commercial organisations followed. Fujitsu had proven itself as a member of the Australian ICT community.



Amdahl Corporation was founded in 1970 by the legendary Dr Gene Amdahl. He was one of the fathers of the IBM 360 mainframe architecture, which revolutionised corporate computing in the 1960s.

**FUJITSU MADE** a substantial investment in the new company, which released its first computer, the IBM compatible 470/6, in 1975. Fujitsu increased its investment in Amdahl to 49% in 1984. Its investment gave Fujitsu access to IBM compatible technology, and at the same time enabled it to establish a market position and experience in dealing in the US and other western markets. Fujitsu manufactured Amdahl mainframes in its plant at Numazu, near the base of Mount Fuji.

When Fujitsu set up in Australia as FACOM in 1973 it had difficulty competing against IBM mainframes. Its M series machines were completely proprietary, and software had to be developed specifically for their environment. IBM, systems, on the other hand, had a large and growing variety of packaged software available, and experienced IBM skills could be obtained for application development.

FACOM Australia needed a product with which to compete in this market, so Managing Director Mike Rydon visited Amdahl's headquarters in Silicon Valley and arranged for FACOM to distribute Amdahl systems in Australia, where Amdahl was represented. This enabled FACOM Australia to enter the IBM compatible market.



PREVIOUS Gene Amdahl in 1973 RIGHT The Amdahl 580 Series (1982)

Initial sales were made to Qantas and Databank New Zealand. These were followed by other large private and public sector organisations. Then in the late 1970s Fujitsu Japan released the IBM compatible FACOM M100 series in Australia. These systems ran a Fujitsu proprietary operating system (OSIV/F4, later evolved to become MSP) which could run IBM's MVS applications.

For the first time, Australian organisations now had a real choice. They didn't have to be locked into IBM hardware and software. But it meant that FACOM Australia now had two sales teams, with the Amdahl and FACOM sales representatives often competing against each other, even though they

were divisions of the same company in Australia. In 1980 Amdahl set up its own operation in Australia.

The two companies were in direct competitors in many bids, but they often worked together to defeat the common enemy. A prime example was the sale of Amdahl processors by Fujitsu into Telecom Australia in 1980 to beat the IBM bid.

Both companies did very well in Australia in the 1980s, the heyday of the mainframe, but then the mainframe market started to decline. While Fujitsu was making the successful transition into a services company, Amdahl saw its market declining. In 1997 Fujitsu acquired the remainder of Amdahl

Corporation, and in 1999 Amdahl became a division of Fujitsu in Australia and New Zealand. The Amdahl name became part of ICT history in 2002, when Fujitsu made the decision to not try to compete directly against IBM's new generation of mainframes.

When Fujitsu acquired Amdahl it also inherited DMR Group, a Canada based consulting organisation which Amdahl had previously acquired and which had a substantial operation in Australia. DMR Australia retained a separate identity until 2004, when it was absorbed into Fujitsu Australia's growing services practice.

### amdahl

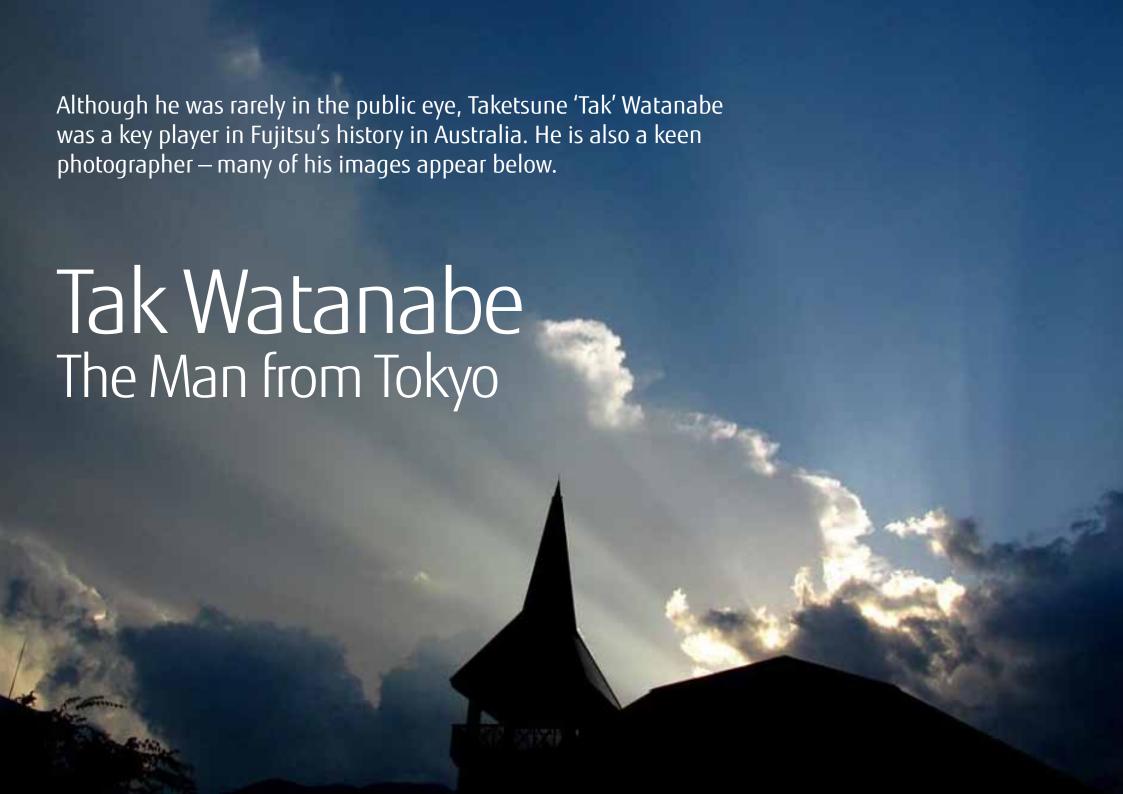






ABOVE Amdahl logo
RIGHT Gene Amdahl
FAR RIGHT TOP Inside an Ahmdal
mainframe
FAR RIGHT BOTTOM Amdahl 470

FAR RIGHT BOTTOM Amdahl 470 uncovered. The circuit boards were made by Fujitsu





The history of Fujitsu in Australia would have been very different without Tak Watanabe's important contribution.

TAKETSUNE WATANABE JOINED Fujitsu from the prestigious Waseda University in 1962. In 1971 he went to Hawaii to establish the Japan America Institute of Management Science, affiliated with the University of Hawaii. After working with a Fujitsu partner in the US he moved to Sydney in 1981 when he was given the responsibility of rearranging FACOM Australia's finances. As General Manager of Administration he implemented new internal accounting and ICT systems, and two years after he arrived the Australian operation made its first profit.

Watanabe-san was an integral part of the management team, chairing a regular meeting of all senior managers. He was largely responsible for the name change from FACOM Australia to Fujitsu Australia in 1985. In that year he returned to Japan as General Manager of the newly formed Oceania division of Fujitsu. He then became Senior Vice President of all overseas marketing, excluding China and Korea.

Fujitsu Australia and Fujitsu Spain were the two biggest companies in the group, which meant he made many trips to Australia until 1998, when he became President of Fujitsu subsidiary Nifty, one of Japan's leading Internet Service Providers. "So I spent a total of 17 years with Fujitsu Australia," he says. "I loved Australia, and my time there."

Watanabe was the ultimate go-to man, the fixer, the oil that made the sometimes creaky wheels of the relationship between Australia and Japan turn. "He was on our side and at our side all the time," says Fujitsu Australia MD's during most of the 1980s, George Ranucci. "If we had any problems with customers, or if we needed to have something special done, he was always there to help out."

He became President of the Japanese Internet Providers Association, a position he still holds. In 2009 he was honoured by Emperor Akihito for his long service to Japan's ICT and Internet industry. He is a keen photographer. His landscape shots from his travels around the world are famous within Fujitsu, and are used on many of the company's websites.

The history of Fujitsu in Australia would have been very different without Tak Watanabe's important contribution.

# The Australian Bureau of Statistics

The Australian Bureau of Statistics was one of the world's earliest statistical agencies – and remains one of the best

For over a quarter of a century the Australian Bureau of Statistics (ABS) and Fujitsu enjoyed an intimate connection as the ABS cemented its international reputation as one of the world's leading statistical agencies.

WHILE FUJITSU'S TECHNOLOGY was important in delivering the information platforms for the ABS, the Bureau was critical in cementing Fujitsu's status as a leading ICT vendor in Australia.

The ABS was one of the earliest users of computers in Australia. It originally used Control Data mainframes, but by the 1970s IBM-compatible mainframes were in the ascendancy worldwide, with a wealth of software and skills that were forming an important ecosystem that could not be ignored.

Fujitsu's winning bid saw the ABS pay \$8 million for the FACOM M200 and a further \$4.2 million for a supporting network. That initial machine boasted 5 MIPS (million instructions per second) processing capacity, 6 Mbytes of memory and 6 Gbytes of disk storage.

Over the course of the initial contract, there were nine separate phases adding more memory or new processors to the platform. The last upgrade under the initial contract was in 1987.



### **CUSTOMER PROFILE**

For FACOM's Japanese parent the deal was highly strategic in terms of fulfilling the company's international ambitions. It was the first M series mainframe sale outside of Japan. For the Australian ICT industry the deal was also significant, as it broke the stranglehold that IBM then enjoyed over most of the nation's major accounts, opening the market to increased competition and lower prices, and effectively legitimising IBM compatible mainframes.

In 1980 when the M200 mainframe was installed at the ABS Fujitsu was so new to Australia that it was translating manuals from Japanese and into English on the fly. ABS veterans still recall buying IBM manuals and substituting Fujitsu part names if a Fujitsu manual translated into English could not be easily sourced.

The ABS was undertaking pioneering data analysis work, developing information systems capable of managing and manipulating the nation's vast data reserves and working closely with Fujitsu to develop systems capable of such complex processing tasks.

The ABS was Fujitsu's largest customer in Australia for many years, while senior ABS staff played a hugely important role in establishing and strengthening the local Fujitsu user community. Senior ABS personnel including Bryan Fitzpatrick, Don Aitken and the current Australian Statistician Brian Pink

all served as presidents of the Fujitsu Users Association of Australia.

Don Aitken had been a systems programmer with the ABS, but was eventually promoted to become director of the section of the ABS that managed the mainframe from 1986 to 2002. Aitken, in association with John Crocker, head of the operations and software branch of the ABS in the early 1980s, has written an extraordinarily detailed – and fond – history of the Fujitsu years at the ABS; days when enterprise computing was still characterised by the pioneer-spirit of IT professionals.

In the words of Aitken and Crocker, the history was targeted at readers who "remember computing without PCs and music without iPods."

The last major Fujitsu mainframe acquisition undertaken by the ABS took place in 1996, when the Bureau's M780 was replaced with a GS 8400/30 system with three CPUs, which delivered important power and air-conditioning savings, along with reduced maintenance and software costs.

By the late 1990s the nature of computing had changed radically from the old mainframe days and client server architectures were increasingly commonplace. But the ABS-Fujitsu relationship was sustained even as the Bureau began its transition to a Unix environment, selecting Sun processors supplied by Fujitsu.

The mainframe's days were, however, numbered – and so were Fujitsu's at the ABS as other midrange suppliers began to supply the hardware needed to underpin the ABS's processing requirements. Having enjoyed a long and fruitful partnership the ABS was reluctant to see Fujitsu leave its supplier community and continued to buy disk, some software and even explored the possibility of using Fujitsu personal computers to sustain the relationship.

While the mainframe was the centrepiece of ABS computing for many years, Fujitsu also developed a computer network for the ABS using hardware from Digital Equipment

Corporation. DEC supplied the hardware and CSA handled the deployment, with Fujitsu fulfilling the role of prime supplier.

The last Fujitsu mainframe at the ABS was decommissioned in 2006 and it seemed the Fujitsu-ABS relationship might be consigned to the history books. But asked whether the ABS might at some stage return as a Fujitsu user, Brian Pink, former Fujitsu user group president and the current Australian Statistician, said; "Fujitsu will always be welcome at our table. We had an excellent strategic alignment spanning many years and we have fond memories of their support and service to the ABS."





1986 to 1999

# From Hardware to Services

By 1986 Fujitsu was well established as a significant player in the Australasian ICT scene. Its victory in winning the Australian Bureau of Statistics tender, and other significant wins at Telecom Australia and elsewhere, had seen to that. But even as Fujitsu in Australia and New Zealand was growing, the world in which it was operating was changing, and changing very quickly.

RIGHT Fujitsu was a major exhibitor at Expo 88 in Brisbane BELOW In 1989 Fujitsu adopted a new logo, with a stylised Infinity sign indicating the company's infinite possibilities



PCS CAME FROM nowhere in 1980 to dominate the industry at the end of the decade. But that was a minor change compared to what would follow in the 1990s. The World Wide Web, invented by Tim Berners-Lee in 1993, made the Internet accessible to all, and within a few years our lives were transformed. The mainframe market declined as processing moved to smaller machines, and by the end of the 1990s even most minicomputer suppliers had gone out of business or been acquired.

These were years of unprecedented change. To survive, technology companies need to be flexible and dynamic. Yesterday's certainties very quickly disappeared. Many of Fujitsu's traditional rivals were unable to adapt. Even IBM faltered in the early 1990s.

George Ranucci, an urbane Italian, was Fujitsu Australia's second Managing Director. After joining in 1981 as Sales Manager, he succeeded Mike Rydon as Managing Director in 1985. In that year the company changed its name from FACOM Australia to Fujitsu Australia.

During Ranucci's time as Managing Director, Fujitsu Australia became the most successful of all Fujitsu's international subsidiaries. Revenues trebled – from \$80



RIGHT George Ranucci, Managing Director 1985-1989 FAR RIGHT Neville Roach, Managing Director 1989-2000





million to \$210 million, and headcount doubled, from 450 to 900.

"The company prospered and we obtained a lot of credibility with head office in Japan," remembers Ranucci. "It wasn't used to having overseas subsidiaries making a profit. In America they were not doing very well at all.

"We were the first computer company in Australia to provide a contract with a guarantee of uptime. We had a quality product and quality service, we hired good people, we had good internal training and we had a disciplined sales force. We developed a real team spirit within the company."

Under Ranucci Fujitsu had some very good years. In his first year brand name companies like Fairfax, AMI, CSIROnet, PSB in New Zealand, New Zealand Post Office, SEQEB, AAMI, VACC, SA Gas, Hindmarsh Building Society, Canberra Times, and P&O all became Fujitsu customers. It was the heyday of the mainframe, and Fujitsu was offering a superior product at a very competitive price. It had astonishing momentum.

But by the early 1990s the industry, and Fujitsu, was to undergo a major transformation, from a reliance on hardware and systems software to a much broader base of services

and facilities management. By the end of the 20th century Fujitsu, like the rest of the ICT industry, was unrecognisable from what it had been 15 or 20 years earlier.

These were exciting times. To many it seemed like the long tech boom of the 1990s – the era of 'irrational exuberance' – would never end. Anything seemed possible. Hundreds of start-up companies promised the end of conventional economics, based on the idea that the Internet would change everything.

Many things did change, but not the basic laws of economics and business. Large computer using organisations still needed the ability to use ICT to facilitate – or transform – their business. Fujitsu was there to help them do just that.

But to do so it first had to transform its own business. Neville Roach joined FACOM Australia in 1980 as National Systems Engineering Manager, then became General Manager of Marketing in 1985. He succeeded Ranucci as Managing Director in 1989. He oversaw Fujitsu Australia's transition from a company whose revenues were largely in hardware – mainly mainframes – to one of the ICT industry major services organisations.

"Fujitsu was always exciting," says Roach, "sometimes a

bit too exciting. We had a frontier type of culture in Fujitsu Australia, with a lot of rough diamonds. But these were the people who had the courage to take a risk. We introduced flexibility of contracts, we introduced negotiations, we introduced guaranteed uptime. But it was tough. We were building a new workforce. It was much more difficult than I had thought it would be."

In many ICT companies Roach's transition from systems engineering to marketing may have seemed strange, but not at Fujitsu. "Fujitsu's SEs did a lot of marketing anyway. In other companies marketing was part of sales, but in Fujitsu it was genuine marketing, and closely linked to systems engineering. You always had to promote the technical strength of Fujitsu and give customers assurance that they were not taking a huge risk."

The 1992 merger with ICL, which had already made a significant shift to services in Europe, moved Fujitsu Australia further in that direction. Fujitsu already had a successful practice prime contracting for third party vendors, and was now able to become a one-stop shop for procurement and services.

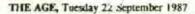
But even bigger changes were yet to come.

# Fujitsu Customers in the 1980s

The 1980s was the decade Fujitsu came of age in Australia and New Zealand. The following pages celebrate some of the significant customers of the period – many of which are still with Fujitsu today.



THE POSSIBILITIES ARE INFINIT





### COMPUTER AGE 2

## Fujitsu sells \$12m worth of hardware to Mayne Nickless

Figits: Asstratin has sold \$12 million of computer hardware to the payroll division

Rowever, Pajine, which supplied every if the computers in the Estrobet data Pojitsu competers can the latest version IDM systems software — and give IBM



### **David Syme**

David Syme and Co was the publisher of The Age, Melbourne's respected broadsheet morning newspaper. It was a subsidiary of John Fairfax, which acquired the company in 1983.

AGE. AGE

The company installed a FACOM M-180N in 1982 and upgraded to an M-760 in 1988. "We will use the M-760 to increase services to our subsidiaries and to improve response times to users, as well as cater for future expansion," said Pradeep Agrawal, David Syme DP Manager.

The 1988 upgrade also included a disk cache controller unit which could be configured with up to 64MB of memory, an enormous amount in those days. It allowed data to be accessed much more quickly, at up to 9MB a second.

### **Mayne Nickless**

One of Fujitsu's most significant orders of the late 1980s was a \$12 million sale to diversified transport and services group Mayne Nickless. The 1987 deal came shortly after Fujitsu's arbitration agreement with IBM which ensured it was able to offer IBM compatibility.

Mayne Nickless installed Fujitsu M-730, M-760 and M-780 mainframes at its new computer centre in the Melbourne suburb of Mulgrave. The company had been a Fujitsu mainframe user since 1980, and was happy to remain so.

"We called for tenders for this hardware and Fujitsu was successful based on supplier commitment, upgrade paths, reliability, price performance and technical considerations," said Mayne Nickless General Manager Computer Services, Brian Youston.

### **CIC Insurance**

CIC Insurance was formed from the merger in 1986 of the Cooperative Insurance Company, Carlingford Australia and the Australian operations of National Insurance of New Zealand. Soon after the merger it standardised on Fujitsu mainframes across the group, installing an M-380Q in its Parramatta data centre to complement its existing M-340U. The new machine replaced an IBM 4381 and an IBM System/38.

An article in Computerworld, reporting on the sale, quoted Assistant General Manager DP, Tony Power. "We took Fujitsu because the company was more responsive to our needs, Fujitsu met our tender requirements and seemed to understand our business better. IBM did not."

TOP Brian Nelson of Fujitsu and Pradeep Agrawal, David Syme DP Manager





### Tip Top Ice Cream Company

In early 1989 New Zealand's Tip Top Ice Cream Company installed Fujitsu System 29 handheld computers into its fleet of trucks across the country. It called the system CARDS – Computer Assisted Route Delivery System.

"Having the system produce accurate point-of sale invoices, stock control and records means sales representatives are no longer tied up with lengthy administrative tasks,: said Brian Tolsen, Tip Top's Information Services Manager.

Tolsen said the company was impressed with Fujitsu's approach and solution to the Tip Top assignment. "Through the entire process Fujitsu personnel showed a real commitment to helping us find the best answer to our needs. We're confident the Fujitsu system will bring real benefits for the company and our customers for many years to come."

TOP Tip Top's Information Systems Manager Brian Tolsen and salesman Larry Beesley.

### **ORDERS**

### Facom \$1m contract

FACOM Australia Ltd has won a \$1 million contract to install its Facom M-360R computer system at the Zinc Corporation Ltd installation in Broken Hill.

Zinc Corporation, the foundation member of

stallation with IBM-compatible equipment.

"Facom won the order against its three competitors, because it was able to demonstrate proven reliability, excellent price performance and compatibility with a wide range of industry standard software.

### Corporate Affairs Office of Victoria

In 1986 the Corporate Affairs Office of Victoria placed a \$2 million order for a Fujitsu M-380Q mainframe for the development of its revenue collection and receipt system. It was part of the agency's four year computerisation program – records had previously been kept manually.

The first stage of the project – a registration system for company and business names, annual returns and details of business proprietors and operators, went live in December. Software was developed by Fujitsu and Aspect computing. (Many years later Aspect was acquired by KAZ, which was then acquired by Fujitsu).

### **Zinc Corporation**

In 1985 Fujitsu (still known as FACOM) won a \$1 million contract to install an M-360R mainframe in Broken Hill. Zinc Corporation was part of mining giant CRA, which had standardised on IBM, but Fujitsu's lower price and superior service won the day.

The Fujitsu machine replaced an ICL 2946. Company spokesman Geoff Wilson said a critical factor was the support Fujitsu could offer in the company's remote location, along with price performance and IBM compatibility.





### **Prospect Electricity**

In 1988 Prospect Electricity, which served the needs of over 400,000 residents of western Sydney, installed a new Customer Information System (CIS) on its Fujitsu M-380Q mainframe. Developed in conjunction with consultancy group Arthur Andersen, the system incorporated electricity billing, payment processing, management reporting and customer enquiries.

The system was built on top of Fujitsu's AIM/DB database. "AIM/DB is an efficient database,: said Prospect Electricity's MID Manager Tony Clancy. "We are aiming for a system that represents the finest CIS software in the industry."

### **NZ Ministry of Transport**

In October 1987 New Zealand's Ministry of Transport went to tender for a new computer system. "We were not necessarily looking for a mainframe solution," Marilyn Foreman, the ministry's Director of Finance. "It could have been a bureau application, an in-house distributed system or a PC based system."

The key requirement was for a cost-effective financial management system flexible enough to adapt to future processing and reporting needs. A Fujitsu M-730/10, running McCormack & Dodge financial software, was determined to be the best fit. The machine was initially installed in Fujitsu's Wellington Computer Centre, then moved to the Ministry's new Wellington data centre.

### The 1989 Sydney to Hobart Yacht Race

A yacht sponsored by many of Fujitsu Australia's dealers entered a yacht, imaginatively called 'Fujitsu Dealers', in the 1989 Sydney to Hobart Yacht Race. The boat was skippered owned and skippered by John Lyles.

Fujitsu Dealers performed creditably. Of 92 starters, it crossed the line in 38th position. It came 16th overall on handicap, and was 4th in its class of 17 boats (It was a Davidson 36). It could have been much better.

"We were holding a good position until Maria Island, thirty to forty nautical miles before Tasman Island," said skipper Lyles. "Then we hit a dead patch. There was just no wind, and we lost a couple of hours we couldn't make up."

The boat then sailed to Melbourne and competed in the Petersville Regatta, a week long series of races starting from various yacht clubs around Port Phillip Bay. Again the boat and her crew performed admirably, finishing 5th in a field of 72 starters.





# Fujitsu at Expo 88

Many people — especially in Queensland — regard World Expo 88 as Brisbane's coming of age. The old docks on the south bank of the Brisbane River became the Expo site, and after that the South Bank cultural and entertainment precinct — the hub of modern Brisbane.



**IN MANY WAYS** it also marked the coming of age of Fujitsu in Australia. Fujitsu was a major exhibitor at the Expo. It had been in Australia 15 years, and any idea that it was some sort of Japanese upstart was long gone. It was a very successful systems and services company in the Australian market, and its stand at Expo 88 proclaimed that it had arrived.

World Expo 88 was opened by Queen Elizabeth II on 30 April 1988, accompanied by Brisbane Lord Mayor Sallyanne Atkinson and new Premier Mike Ahern, who had recently replaced the controversial Joh Bjelke-Petersen. "Today we officially become an international city," said Atkinson at the opening, and she was right. Brisbane has never looked back.

Nor has Fujitsu. Its pavilion was one of only two sponsored by ICT companies (IBM was the other) and proclaimed its coming of age as a major supplier to the Australian market. The pavilion was based on its successful exhibit at the 1985 World Expo in Tskuba Science City in Japan.

The Fujitsu pavilion showed a 3D film on the formation of the Universe, projected onto the ceiling. Visitors were given red and blue 3D glasses and sat in reclining chairs to view the movie, which outlined the five billion year history of our solar system.



LIRIER MAIL









0.00

The pavilion also featured a gallery of animated models which traced the history of computers and communications technology from early calculators to satellites, submarine cables, supercomputers and robots. The Fujitsu exhibition won the Golden Platypus award for the best stand at the Expo.

The Expo organisers forecast less than eight million visitors — there were over 18 million in the six months it ran. Three people died at the site — most probably from excitement, and three women went into labour, most probably for the same reason. Eight million hot dogs and 90 tonnes of spaghetti were consumed, and enough beer to fill 650 suburban swimming pools.

Fujitsu spent \$6 million on its pavilion, equivalent to over \$20 million today. "We were looking at ways to raise our profile in Australia, because in our first 15 years we relied on personal contacts with 5000 or so prospective clients," said Managing Director at the time, George Ranucci, when interviewed by advertising trade magazine B&T.

"We saw Expo 88 as a way of introducing our name and a good understanding of what we do to a lot of people. Expo 88 is dollars very well spent for our long term marketing. It is just the right time for the broadening of our product base."

## Fujitsu New Zealand From the Early Days Towards 2000

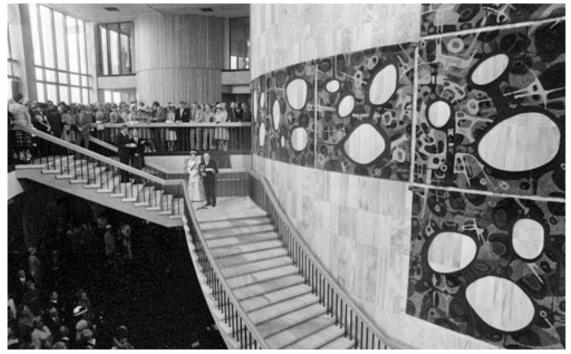
Fujitsu's early history in New Zealand is a little different to that in Australia. It is inexorably bound up with that of British computer vendor ICL. The two companies cooperated for many years, but after they merged in 1992 a Kiwi ICT powerhouse was born.

**FUJITSU'S ORIGINS IN NEW ZEALAND** date back to 1961, when Fujitsu Telecommunications began operations as an agency of Plessey. Its biggest deal was selling a microwave radio link to the Civil Aviation Company for use in the building of the new international airport in the outer Auckland suburb of Mangere, which opened in 1966.

After arriving from Plessey in the mid-1960s, telecommunications manager David Charlesworth made sales on behalf of Fujitsu on an agency basis, doing around \$500 million worth of business between then and 1984. Meanwhile British computer company ICL established a strong presence in New Zealand, which in those days still had very strong connections with the United Kingdom.

In 1975, ICL national support and project manager Steve Brunt and his wife emigrated from the UK to take a job with the New Zealand government, which had ordered a large ICL mainframe. "The State Services Commission had bought an ICL 2980 mainframe. It was a huge project for the time," Brunt recalls.

"We started off that project in 1975, a year before the hardware arrived. This was in the days when government departments like



The opening of the Beehive, 1977



The ICL 2980 mainframe in the Trentham Computer Centre, 1985

Statistics, Forest Research Institute and the Met Office didn't have their own systems, because they were far too expensive and far too large. We spent the next year bringing in people to work at the Trentham Computer Centre, a custom-built facility in the building where the New Zealand Defence Force now is in Upper Hutt."

At around the same time a Fujitsu FACOM mainframe was shipped from the UK to the New Zealand Post Office's Heard Street site in Wellington, helping to fulfil what would become a longstanding contract with the Postbank savings bank. Fujitsu did not have a direct presence in New Zealand at the time, so ICL New Zealand maintained the machine, an arrangement that would continue until April 1987 when the Post Office became a state-owned enterprise and was split up.

The New Zealand branch of ICL was at 126 The Terrace in Wellington, which had a large crack down the side from Wellington's many earth tremors. ICL also had around 20 people based at the Government Computing Centre, which had its own standalone management and technical support. In 1987 the

company secured the Accident Compensation Corporation as one of its biggest customers. Managing Director of ICL at the time was Tim Cullinane.

Fujitsu New Zealand was established in 1984. When telecommunications manager Stan Baker joined the newly incorporated company that year, its office was situated on Wellington's Willis Street. "It was upstairs in a building where we shared office space with another company," says Baker, who was only the company's 11th employee and its first ever in telecommunications.

Following a three-month handover period at the end of 1984, Fujitsu New Zealand took over all the existing Plessey contracts and became solely responsible for new business. Charlesworth left Plessey the same year and set up what would become the Comworth Group of companies. Fujitsu New Zealand became part of the Australasian operation when new Australian Managing Director George Ranucci took over in 1985.

In 1990, Fujitsu acquired 80 percent of ICL globally as a means of breaking into the European market. This had major ramifications in New Zealand, where ICL was bigger than Fujit-

su. ICL New Zealand's Managing Director was now John Peters, who became head of the newly merged company and undertook a major restructuring which was completed when Fujitsu acquired the remainder of ICL globally in 1992.

In 1993 Peters left to become CEO of Wairarapa Health Board. He was replaced by John Bell, who had led Fujitsu New Zealand before the merger and was Sales and Marketing Manager of the merged entity. Bell headed Fujitsu New Zealand until April 1996, when he moved to Telecom New Zealand as its business development General Manager.

Australian business development manager Terence Robertson stepped in until a decision was made about how Bell's role would be filled. While the number of employees remained fairly static at between 200 and 250 people, with the advent of the PC the company began to acquire other brands. In New Zealand Southmark Computers was acquired in 1993. It was run as a separate subsidiary until 1996, managed by previous owners Peter Uffindell and Stuart Finlayson.

The mostly young staff at Southmark referred to what they perceived to be the traditional and straight-laced Fujitsu-ICL team as the 'cardigans'. In turn the Fujitsu people called the Southmark staff 'party animals'. But the cultural differences were soon ironed out, and Fujitsu became the largest IBM and HP PC reseller in the country.

New Zealand's merged Fujitsu-ICL operation developed a speciality in supplying and servicing the ICT needs of the retail industry. By the mid-1990s it had won many large customers in both the public and private sectors, including Health Waikato, the Accident Compensation Corporation, Department of Conservation, the Ministry of Justice and Transpower. State Insurance came on board in 1999, around the time Fujitsu NZ sold a major asset management system called Confirm to Wellington City Council.

By this time Fujitsu New Zealand had very much forged its own identity, though many former ICL employees remained with the company. The next decade was to be even more successful.

## Fujitsu versus IBM

In the 1980s Fujitsu became involved in a protracted legal battle with IBM over its use of mainframe operating system software. The issue was eventually resolved, with major ramifications for the Australasian operation.

MAINFRAME COMPUTERS are complex beasts. They use very sophisticated operating systems with cryptic names. The operating system is key to the issue of compatibility — if different computers from different manufacturers can run the same operating system, they can run the same application.

Large IBM mainframes in the 1980s used an operating system called MVS. In its attempts to compete against IBM, Fujitsu developed a similar and compatible operating system called MSP, which used some of the same source code. IBM immediately cried foul and claimed that Fujitsu had violated its intellectual property rights.

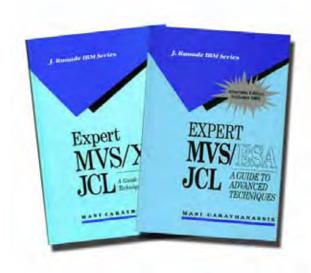
Both parties agreed to submit the dispute to an independent arbitrator. In 1985 the dispute went to arbitration in the US, under the auspices of the American Arbitration Association. The arbitrators, agreed to by both parties, were Robert Mnookin (a professor of law at Stanford University) and John L Jones (a retired railway executive and MIS manager).

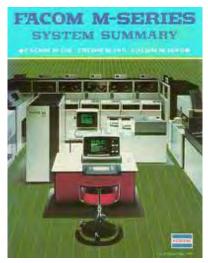
The arbitrators handed down their first decision in September 1987. That decision, a document about one





LEFT MVS manuals
CENTRE M Series manual
RIGHT Robert Mnookin







inch thick, set the framework for the agreement. A second judgement, handed down in November 1988, spelt out the details. Mnookin and Jones resolved the extent to which Fujitsu and IBM could access each other's systems software secrets, and how that was to be done, and established the payments Fujitsu would make to IBM for that use.

Under the arbitrated agreement, IBM and Fujitsu were permitted to derive specific interface information from any new operating systems the other released before 1997. In return Fujitsu agreed to pay an annual access fee. The first fee, for the year 1989, was set at a minimum of US \$25.7 million.

Fujitsu was also directed to pay a license fee of US\$396 million for IBM-based operating system software it had already released. The payments assured Fujitsu of immunity from any claims of infringement of intellectual property and absolved Fujitsu from the threat of any further litigation by IBM. The sharing of operating system secrets was to take place in a so-called 'secured facility', opened in Japan in 1989.

It was generally agreed that the arbitration agreement was better for Fujitsu than it was for IBM. Fujitsu, despite

the limitations placed on its ability to publicly comment on the agreement, was clearly the more satisfied of the two protagonists. Fujitsu had to pay IBM a vast amount of money, but it was money the company could well afford, and which allowed it to continue to compete in the mainframe market, which during the period of the agreement was in any case in serious decline.

The arbitration agreement came after Fujitsu executives in Japan had expressed their concern at Fujitsu's ability to remain applications compatible with IBM, because of IBM's threat to sue over the operating system infringements. In one stroke the agreement cleared that concern, and gave Fujitsu a powerful marketing argument.

Fujitsu was now able use the agreement as proof that it would indeed be able to keep a parallel path with IBM, and provide true applications compatibility. Under the terms of the agreement, neither party could comment publicly on the terms, but Fujitsu could refer people to it whenever the question of continued IBM compatibility came up.

Fujitsu Australia, as Fujitsu's largest mainframe market in the English speaking world, was intimately involved in the proceedings. George Ranucci, Fujitsu Australia's Managing Director at the time, recalls the effect it had on the local operation.

"For a time it made it a lot more difficult to win new business. We did well but we could have done a lot better had we been able to offer an operating system which was totally compatible with MVS. We couldn't — it was pretty close but not quite there. We could never get the big banks, for example, because they were using third party software packages which had been developed specifically for MVS, which we couldn't access.

"We were limited to a market that was reduced in size. We could only address those companies where we could offer something compatible with what they had. But most of our customers were very supportive and they were seeing us as finally offering an alternative."

Fujitsu Australia played a major role when the dispute went to arbitration, providing many expert witnesses. IBM was worried that if Fujitsu succeeded in Australia that that would lead to greater success worldwide. Which is exactly what happened.



The official opening of FAST.

LEFT TO RIGHT TAK Watanabe,

Neville Roach, Terry

Metherell, Bruce Rankin



In the late 1980s things were moving fast for Fujitsu Australia. Revenues had skyrocketed, it was opening new offices, and many new customers were joining the fold. Australia was Fujitsu's most successful international subsidiary. It was also the site for Fujitsu's first software development facility outside of Japan.

**IN 1989 FUJITSU** made a major investment in Australia, demonstrating both the importance of the local subsidiary to the company and its commitment to a long term relationship with the Australian ICT industry.

In June of that year it announced the establishment of Fujitsu Australia Software Technology (FAST), a major software development centre for Fujitsu and the first such facility outside of Japan. FAST was established in response to the arbitration settlement with IBM under which both companies were granted access to each other's mainframe system software.

Many of FAST's early projects were to develop software designed to bridge the gap between IBM and Fujitsu software. Indeed, the very first project undertaken at FAST was called CICS/AIM/BRIDGE. That software enabled third party applications which ran on IBM's CICS mainframe transaction processing system to be run on Fujitsu mainframes under the AIM/DB database.

The centre was officially opened by local MP Terry Metherell on 31 October 1989. FAST was established in its own premises in the Sydney suburb of Frenchs Forest, coincidentally adjacent to the Australian headquarters

of ICL, which Fujitsu was to acquire in 1992. There was a smaller centre in the Brisbane suburb of Taringa, near the University of Queensland.

FAST was a major investment for Fujitsu, with initial capital of \$10 million – a lot of money in 1989 – and tens of millions in subsequent years. The first computer to be installed at fast was a Fujitsu M-780, at that time Fujitsu's largest commercial mainframe. It was staffed almost totally by Australia software developers, and had a staff of 45 soon after its establishment. The first Chief Operating Officer was Bruce Rankin.

The man largely responsible for establishing FAST was the Deputy Manager of Fujitsu's software division, Makato Shiraki. When he came to Australia for the announcement of FAST he said that Fujitsu recognised that the English speaking world had special needs that could not adequately be addressed from Tokyo.

"This is particularly evident with user interfaces in business, where there is a different style of interaction. Our decision to invest in Australia shows our confidence in the Australian people and our knowledge that Australia can produce quality software products for export to world markets.





FAR LEFT The FAST building in Frenchs Forest in 1989 LEFT Bala Varadarajan

"Australia has a lot to offer in its understanding of international software requirements, and the ability to research and test those requirements against a large customer base." said Shiraki.

FAST's initial areas of specialisation were the development of Fujitsu AIM/DB database, office systems, user interfaces, and the production of manuals and documentation for Fujitsu systems. A key feature of the FAST software development process was the establishment of a software development methodology which combined exacting quality assurance processes with the latest techniques in software development, such as CASE (computer-aided software engineering), 4GLs and rapid prototyping to accelerate the development process.

The software developed at FAST became an integral part of Fujitsu's commitments under the Australian Government's Partnerships for Development Program (PDP), under which Global ICT vendors were treated as Australian companies

in return for investing in Australia. Fujitsu was a major participant in the PDP, exceeding its obligation to spend 5 percent of its local revenues on R&D in Australia, largely as a result of FAST's operations.

FAST remains in operation today, nearly a quarter of a century after it was established. Managing Director since 1997 has been Bala Varadarajan, who joined Fujitsu Australia as a young software engineer in 1985. FAST develops software across all the major platforms with a

strong focus on emerging technologies, standardisation, digital media and cloud technologies.

FAST is a shared service organization with the mission to support Fujitsu Australia New Zealand and other Fujitsu international subsidiaries in leading edge technologies. It employs systems and enterprise application integrators, software designers and developers, solution architects and project managers. FAST reports to and is managed from Fujitsu's software division in head office in Tokyo.

"Australia has a lot to offer in its understanding of international software requirements, and the ability to research and test those requirements against a large customer base"



The PC Revolution In the early 1980s the ICT industry underwent the biggest change — until then — in its history. The dominance of large mainframe computers was challenged by a new breed of much smaller computers that could fit on a desktop and owned by individuals.

THE 1980s WERE an exciting time to be in ICT. That was the decade when computing came to the masses. The Altair 8800, released in kit form in 1975, is widely credited with being the first personal computer. Steve Jobs' and Steve Wozniak's Apple II followed in 1977 and the IBM PC in 1981. With the invention of the spreadsheet by VisiCalc, and the migration of word processing from expensive dedicated machines to much cheaper all-purpose PCs, the success of the new computing paradigm was assured.

Fujitsu also entered the PC market in Japan in 1981, with its FM-8. It was the first PC in the world to use LSI 64 kilobit dynamic RAM for its main memory, which made it much more powerful than its rivals.

The 1980s were marked by the inexorable rise of PCs. At the beginning of the 1980s virtually no-one used microcomputers. By the end of the decade they were on every desk. The growth in the PC industry during those ten years remains one of the most remarkable tales in the history of business, and in the history of technology.





The most remarkable thing of all about the PC revolution was how it put computing power into the hands of ordinary people. It was not just accountants and managers and office workers. Laser printers and desktop publishing stood a whole industry on its head. Typesetters and printers went out of business by their thousands. Now anybody could publish professional quality newsletters, posters, and magazines for a fraction of the cost of a few years earlier.

The 1980s also saw the rise of networking. Computers had always been connected to each other, but with millions more computers, networking needed to evolve. The rise of Local Area Networks (LANs) meant that many PCs could be joined together to form computing networks that rivalled

mainframes in power, and substantially surpassed them in versatility.

The mainframe's days as a general purpose computer were numbered. They did not disappear, but they retreated to their original role as backroom number crunchers. The real action was on the desktop, and in people's homes.

That led to another change. The ubiquity of PCs meant that ICT in large organisations became much more distributed, further challenging the mainframe model. That meant new challenges for corporate computing, and new challenges for the ICT companies that looked after the needs of corporate computing.

Fujitsu was about to undergo yet another evolutionary change in its long journey.



## NSW Roads and Traffic Authority

THE NSW ROADS and Traffic Authority (RTA – now called Roads and Maritime Services) was one of Fujitsu Australia's biggest customers of the late 1980s and early 1990s. It was also one of its most important deals globally, because it proved the feasibility of Unix on mainframe computers.

In 1988 the RTA placed an order for seven Fujitsu M-760 mainframes, a massive order. They were all to run Unix, an operating system which at that time was not by many people thought to be suitable for large scale commercial operations.

Fujitsu and the RTA were to prove them wrong. The RTA DRIVEs (DRIver and VEhicle System) was to become the world's largest commercial site, running one of the world's largest implementations of the Oracle database.

Fujitsu was a pioneer in large scale Unix. It was the first Japanese company to join X-Open,

the open systems industry group which promoted the development of the Unix environment. The RTA was also happy to be a pioneer — it had done its homework and was confident Unix on Fujitsu mainframes could handle the massive workload of running a large statewide online vehicle and driver registration system.

DRIVES was the largest database to run on the system, but there were also three other databases, which could now be linked together and accessed from a single terminal for the first time. The Road Database contained information about 42,000 km of NSW roads — accidents, usage, road conditions, and access to the State Land Titles geographic information system. The 'Cream' database was for the RTA's financial and operational needs, including HR, and a property database managed the RTA's substantial real estate around NSW.

The project attracted significant controversy when it first came online. Initial response



#### **CUSTOMER PROFILE**



ABOVE M-1800

times were very slow, but as the system was implemented and fine-tuned they dropped to acceptable levels and ended up being faster than those of conventional mainframe systems. The RTA's — Fujitsu's — faith in the technology was justified.

The project was examined in depth in the March 1993 edition of leading trade publication MIS magazine, which ran it as a cover story and looked at every aspect of the implementation over seven pages and 4,000 words. The man in the driver's seat was Geoff Deacon, the RTA's Director of Registration and Licensing.

"We had four different computer systems running four different applications suites, with

no effective link between them. In theory, you would need four terminals on your desk to access all the applications. It was absurd."

The department ran a Control Data Cyber 830 and 850, a Unisys 1100/73, several Honeywell DPS/6 minis, and over 200 Burroughs B20s. There was also a DEC VAX network at the Traffic Control Centre, the body within the department responsible for controlling Sydney's traffic lights. "It was clearly time to consolidate," said Deacon.

"We intended to implement packaged software as much as possible, but we knew there would be many applications we would have to develop ourselves. We wanted to move towards a single integrated network, and open systems was definitely the way to go. We figured that would ensure that new technology could be implemented with minimal disruption as it became available.

"We went for mainframe Unix because we saw that it would provide as much power as we would need, and that it would offer the ability for users of Unix and IBM environments to coexist, which would give us considerable flexibility in our future planning," said Deacon.

It was a brave decision. In 1988 Unix had begun to achieve a fair degree of popularity, but only for much smaller applications than the RTA was planning. It examined a task force to examine the feasibility of the project.

"The group reported back in August 1989 that we could implement DRIVES on our preferred Fujitsu/Unix/Oracle strategic direction. They had a close look at Unix's capacity and security, and affirmed that mainframe Unix could do the job, and the data modelling exercise pointed towards a relational database like Oracle.

A few months into the project the DRIVES development team realised that it had greatly underestimated the magnitude of the exercise they had embarked upon. Deacon says the RTA made two miscalculations. "Our biggest problem was data conversion. We knew there would be problems, but moving the data from the old IBM files to Oracle was a much bigger job than we originally anticipated."

This miscalculation meant that more pow-

erful hardware was needed to run the system than originally envisaged. At the time the DRIVES development began, it was assumed that a high end Fujitsu M780 mainframe would be sufficient to handle the workload. It soon became apparent that more grunt would be needed, and the RTA ordered a Fujitsu M1800 soon after they were announced.

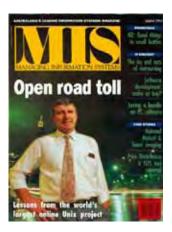
When implemented DRIVES ran on a two-processor Fujitsu M1800-20 mainframe. It was the first M1800 installed outside Japan. It was not until January 1993 that a version of Fujitsu's UTS/M Unix that could take advantage of the multiprocessor configuration was installed, and response times finally fell to the two second target originally envisaged in 1989.

The DRIVES system had 1500 online users, with a typical peak transaction rate of around 25 transactions per second (tps), though the system has been tested at 35 tps. There were usually more than 600,000 transactions in a day. Over 100 motor registries were attached to the system, plus 30 area business offices, 14 insurers and ten other locations within head office. The system was also connected to the NSW Police, who made around 40,000 enquiries a day.

As if DRIVES were not enough, it was only one aspect of the RTA's information systems operation. There were also eight Fujitsu M760 mainframes, running such applications as financials, human resources, and a large range of technical systems. All used Fujitsu's UTS/M

### **CUSTOMER PROFILE**

RIGHT MIS magazine, March 1993 FAR RIGHT M-780







Unix and the Oracle database. Most were at the corporate data centre near Sydney's Central station, but there was one in each regional office at Wollongong, Parkes and Newcastle.

Deacon said in his 1993 interview with MIS magazine that he was very proud of what the RTA had done. "The end result is even better than what we originally set out to do. We strongly believe we built the best licensing and registration system in the world, one whose flexibility will save the taxpayers of NSW a lot of money in years to come."

The RTA deal was very important to Fujitsu globally, and was followed very closely by head office in Tokyo. "Fujitsu regards Unix as a springboard into a new era of mainframe processing," said Fujitsu's Arnold Choromanski, who managed the deal. "Mainframe Unix has better price-performance than traditional mainframe operating systems, while maintaining many of the mainframe's advantages."

The RTA acted as an R&D site for Fujitsu, which funded three developers at the site. It was a proving ground for the commercialisation of many mainframe Unix capabilities, including print spooling, tape management, and various security features. Fujitsu supported the RTA at every stage of the project, investing resources beyond the conventional vendor-user relationship.

The RTA DRIVES system proved to the world the feasibility of mainframe Unix for large real-time applications.



ICL was the most British of computer companies. But like Bull in France, Nixdorf in Germany and Olivetti in Italy, it was unable to make the transition from national champion to global player. ICL became part of Fujitsu in 1992, vastly expanding the company's reach in Australia and New Zealand.



**FUJITSU'S ACQUISITION OF ICL** was a turning point in the company's strategy to become a global ICT player. Previously Fujitsu had been a significant supplier only in Japan, Korea, Australia and Spain, but the buyout meant Fujitsu became the biggest ICT company in the United Kingdom, with substantial operations in Europe.

It also meant a lot in Australia, and even more so in New Zealand, where ICL was nearly four times the size of Fujitsu. In Australia the acquisition of ICL was important, but just another step in its growth. In New Zealand it transformed the company.

ICL was operating in both countries long before Fujitsu arrived. There were already installations of the predecessor companies' machines before ICL was formed in 1968, and ICL was an established supplier by the 1970s. It supplied its 1900 series mainframes, mainly to government agencies, and had already made a substantial move into services.

The ICL acquisition greatly accelerated Fujitsu's move in

that direction, to the extent that a year after the merger services formed half of Fujitsu Australia New Zealand's revenues. Important service areas included third party hardware maintenance (where ICL had been particularly strong), systems integration, and services such as English language technical support of Fujitsu's other overseas subsidiaries.

In New Zealand the Sate Services Commission (SSC) had bought a high end 2980 ICL mainframe in 1975. The 2900 series had only just been released, and the SSC had to wait until 1976 for delivery. It was the largest mainframe in New Zealand, and operated as a bureau service for many other government departments.

ICL, as a much larger company in New Zealand than Fujitsu, began maintaining Fujitsu equipment as it began entering the country, beginning a long relationship between the two companies in New Zealand. At the time of the 1992 acquisition Fujitsu's New Zealand business had only 50 employees to ICL's 200. ICL management dominated the com-



bined operation, with ICL Managing Director Tony Neville becoming the head of Fujitsu New Zealand.

The ICL story had many beginnings. In its modern form it began in 1968 as International Computers Limited with the merger of British computer companies ICT (International Computers and Tabulators) and English Electric Computers (EEC). EEC had been formed from a merger of Elliott Automation, which came into computers from instrumentation, and EELM in 1967. EELM was also the result of the merger, between English Electric, LEO, and Marconi (whose names formed its abbreviation).

The creation of ICL was at the urging of the British Labour

Government, which hoped to form a British ICT vendor able to succeed globally. It took a 10 percent stake in the company, for which it provided £10 million in funding for R&D.

ICL was initially successful, but only because British national, regional and local governments and public sector agencies were strongly encouraged to buy its products. It also had some success internationally, mostly in Commonwealth countries such as Australia and New Zealand.

ICL released the 2900 series mainframe in 1974. It was an advanced machine which was able to emulate software from the architectures inherited in the merger. It ran the VME (Virtual Machine Environment) operating system. Its

CAFS (Content Addressable File Storage) database engine was the first such device commercially available from any ICT supplier in the world. It was popular with police forces, and was used in Australia by Queensland Police, a major ICL user. The Series 39, the first mainframe computer to use optical fibres internally, followed in 1985. ICL also developed the DRS (Distributed Resource System) series of minicomputers and PCs.

In 1984 ICL was acquired by British Telecommunications company STC (Standard Telephones and Cables). The merger did not go well, but ended up with ICL bailing out STC when it suffered financial problems. ICL's combative new CEO





RIGHT ICL 2900 disk drives. FAR RIGHT Fixing a paper card jam.





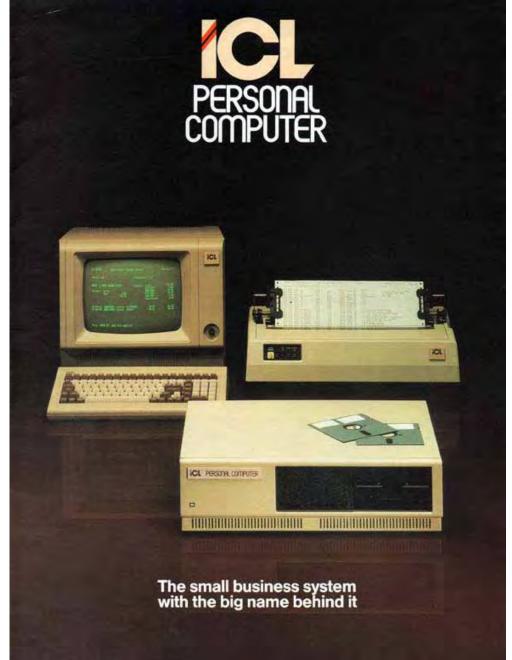


Peter Bonfield turned the combined operation around, but the competitive pressures continued to mount.

The company, despite many acquisitions and substantial product development, never achieved the critical mass the 1968 merger was intended to achieve. It had struggled in the late 1970s and in 1981 US ICT company Univac attempted to buy it. A loan guarantee from the British Government saw off that challenge, but ICL started looking for global partnerships that would enable it to stay in the race technologically and financially.

That was the beginning of the relationship with Fujitsu. After the Univac scare ICL cancelled its expensive LSI (Large Scale Integration) chip development program and bought the technology from Fujitsu. Fujitsu ended up making more and more of the internal componentry of ICL's mainframes, and in 1990 acquired 80% of ICL for US\$1.3 billion.

Two years later it acquired the rest of the company, and ICL became wholly owned by Fujitsu. The ICL brand was quietly dropped as the company was merged into Fujitsu over the next few years. The dream of forming a British ICT giant was over, with Fujitsu and its expanding customer base the beneficiaries.



Early ICL computers

# Manufacturing in Dandenong

In 1987 Fujitsu's Tokyo head office announced in would build a \$35 million telecommunications factory and development centre in the Melbourne suburb of Dandenong. It would be Fujitsu's first manufacturing facility in Australia.



The front page of Fujitsu's Teamline staff newsletter in October 1988, celebrating the opening of the Dandenong plant

**THE PLANT** was opened by Industry Minister John Button in September 1988. Fujitsu's President, Takuma Yamamoto, made his first visit to Australia in 11 years to witness the opening. Also attending was the Deputy Premier of Victoria, Robert Fordham.

The opening of the plant followed Fujitsu's agreement with Telecom Australia (now Telstra) in August 1988 to set up a joint venture called Information Switching Technology (IST) to develop and manufacture telecommunications equipment. Fujitsu leased part of the Dandenong plant to IST for development work by Fujitsu and Telecom engineers, some of it on early mobile phones, which were just being introduced into Australia.

The plant manufactured printed circuit boards, Commander key telephone systems, and PABXs, with the Fujitsu devices replacing those that Telecom had previously purchased from Siemens and NEC. Telecom would end up buying \$40 million

worth of telecommunications equipment from Fujitsu each year from the plant.

The opening of the Dandenong manufacturing facility followed the granting of pre-qualified offsets status to Fujitsu Australia, which recognising the value of its manufacturing in Australia. It was a precursor to the Government's Partnerships for Development Program, in which Fujitsu was to become a major participant.

"The obvious commitment by Fujitsu to Australia as evidenced by this plant will enable a natural transition to partnership," said Senator Button at the launch.

The plant was highly automated, with advanced testing equipment, the ability to use surface mount technology, and computer controlled warehousing. Covering 65,000 square metres, it was built on six hectares of land and employed 200 people.

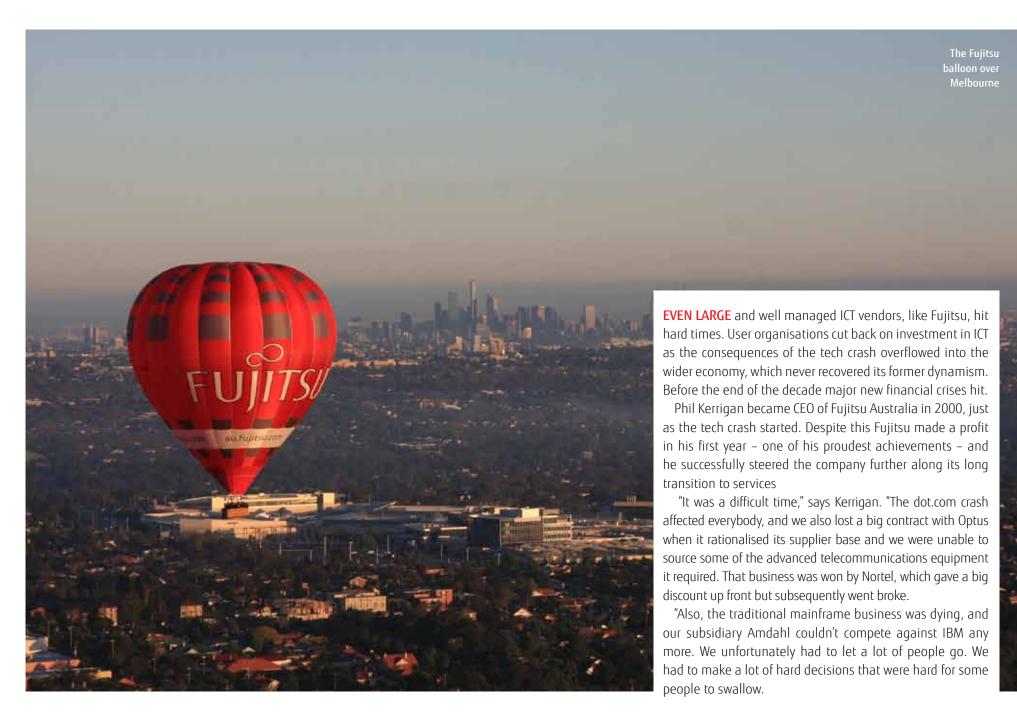
The IST joint venture with Telecom Australia was a significant development for Fujitsu. It was owned 60% by Telstra, 20% by Fujitsu Australia and 20% by Fujitsu Corporation. It had its origins in the creation of a telecommunications group within Telstra Australia in 1985, led by Jeff Barrow. This led to Fujitsu supplying small key systems to Telecom, which marketed them as the Commander F120.

The success of that arrangement led naturally to the supply of larger PABXs to Telstra. The catalyst was increased demand for ISDN, the first digital voice technology. ISDN could not be used with the existing PABXs being sold in Australia, but was being widely used in Japan, Telecom was reselling Fujitsu 9000 series PABXs under its own brand name, but they were being imported from Japan. Production was switched to Dandenong in 1989.

### 2000 to 2012

### The Growth Years

As the new century dawned the long tech boom ended. In early 2000 US technology stocks tumbled, the all-important NASDAQ index losing two thirds of its value in less than a year. Many ICT companies, especially those founded on the voodoo economics of the more irrational Internet spruikers, went bust.



During Kerrigan's time at Fujitsu it attempted to buy Australian services company Aspect, but that company was acquired by its larger rival KAZ. In an ironic twist Fujitsu then acquired KAZ (though after Kerrigan's time), and it went full circle. "I was amused when I read that," says Kerrigan. "It was a great thing for Fujitsu."

But all this time the Internet was maturing, enabling new business models and challenging older ones. A small startup in Silicon Valley called Google changed the way we use the Internet, and the way we think about information. The ICT industry continued its long evolution, placing greater and greater emphasis on services.

Rod Vawdrey was head of Fujitsu Australia at a time when it was evolving quickly. He joined in 2003 after Fujitsu had launched a global search for a suitable candidate to run the Australian operation.

"I was impressed with what I saw," says Vawdrey. "It was also an opportunity to return to Australia, which I wanted to do for family reasons. I thought I would take the job for a few years, but ten years later I'm still with Fujitsu." Vawdrey now runs all of Fujitsu's international operations, though he is still based in Sydney.

When Vawdrey joined Fujitsu Australia it was just outside of the Top Ten ICT suppliers in the country by revenue. "I told the Japanese we needed to move from being number 11 in the country to being in the top three. I told them we needed to set a course to move from hardware to being a services based company, and that we would need to do that both through both organic growth and acquisition. The plan was to grow from \$400 million to a billion dollars in five years. We did it in six."

It was under Vawdrey that Fujitsu acquired KAZ, which doubled the size of the company in Australia and made it a leading services business overnight. "Our philosophy is to buy good assets and to fully integrate them, not to run a federation of companies. KAZ very quickly became part of our business and the people assimilated well."







TOP LEFT Rod Vawdrey
CEO 2003-2011

ABOVE LEFT Phil Kerrigan
CEO 2000-2003

ABOVE Fujitsu's new
Brisbane office

Australia has been a very important part of Fujitsu's success worldwide, says Vawdrey. "There has always been a strong affinity. Australia is a fusion of European and American and Asian cultures in terms of technology. Australians are very advanced technology users – we try things. Fujitsu has a cloud installation here in Sydney which has over Petabyte of data. It's the largest cloud environment in Australia, but it's under the radar, though we've got lots of customers."

Fujitsu has ridden the cloud wave well, as it has the waves before it. Amidst all the economic turmoil of the Global Financial Crisis and the technological revolution brought about by the growth in the Internet and cloud based computing, Fujitsu continued to grow. It is now the third largest ICT services company in Australia.

## Department of Conservation and Fujitsu secure New Zealand's borders

BUILDING ON FUJITSU New Zealand's managed services delivery and relationship held since 1999, New Zealand's Department of Conservation — Te Papa Atawhai (DoC) was looking for a cost-effective way of managing its mail. As a government department, DoC required local support options to protect its network's integrity.

So when its IT service provider Fujitsu approached DoC about migrating the organisation's email security to the Fujitsu email security platform, DoC's technology and outsourced services manager Ken Walker was ready to hear more.

For DoC the cloud-based SMX email security platform, offered as part of Fujitsu's managed services portfolio, ticked the boxes. In 2010, SMX and Fujitsu formed a partnership through which SMX's cloud-based anti-spam and anti-virus offering was made part of Fujitsu's managed services portfolio for government agencies and corporate customers. Locally hosted



### **CUSTOMER PROFILE**

and supported, SMX provided DoC with the assurance its email would be securely managed within the country's borders, with easy access to a local helpdesk.

Walker decided to proceed with the migration after considering Fujitsu's recommendation. The email security for DoC's approximately 1900 users based in Wellington head office and 11 conservancy offices across New Zealand was quickly transferred to the SMX platform. "When we compared the experience of SMX with that of our current solution and others in the market, SMX stood out as the most mature provider, with significantly more resources than any other provider," says Walker. "They also demonstrated solid business continuity processes and are local."

SMX already filters email for a significant portion of New Zealand council, crown research institutes, agencies, district health boards and state-owned enterprises, which was reassuring to DoC. Also, the SMX platform integrates industry-leading email security engines, giving it one of the largest real-time intelligence networks of any global email security provider. This ensures email protection evolves in real time to filter spam and viruses to better than 99.9 percent accuracy with extremely an extremely low number of false positives.

Another important factor for DoC is that SMX operates in country with multiple, nationally distributed data centres, meaning DoC email

stays within New Zealand's borders. Competing services route email offshore.

"One of the key reasons we engaged with SMX is that it operates across the Asia-Pacific region with a strong global mindset," said Paul Bourke, general manager MS New Zealand for FNZ. "It offers a sophisticated, best-of-breed, email security service that's truly world class. Importantly for us, it's locally managed to ensure our client's data sovereignty and compliance needs are met."

"...SMX operates in country ... meaning DoC email stays within New Zealand's borders"









### It all started in one small office ...

Fujitsu's first premises in Australia were at 41 McLaren St in North Sydney. As the company expanded it took more space there, and also opened offices in Melbourne, on Queens Rd, and Canberra. Other cities soon followed. The first New Zealand office opened in Willis St Wellington in 1984.

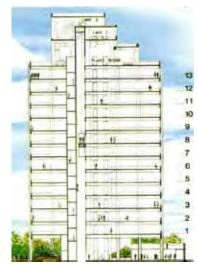
PREVIOUS PAGE 41 McLaren St, North Sydney. FACOM's first Australian office, in 1973.

TOP LEFT Plans for the Chatswood office, 1987.

TOP CENTRE Fujitsu's current HQ in Blue St, North Sydney

тор RIGHT The Fujitsu Tower in Wellington

BOTTOM Fujitsu's new building in Macquarie Park, to be completed in 2014







**FACOM, AS IT WAS** then called, was too busy establishing itself in its early years to worry too much about real estate. But in 1988, Australia's bicentenary year, it moved to a new purpose built tower in the northern Sydney suburb of Chatswood.

The December 87 edition of Teamline, the Fujitsu staff newsletter, covered the building's completion with the humour the publication was known for. "Fujitsu's answer to Fawlty Towers nears final completion in Chatswood, just in time for the Bicentennial. Although construction commenced in 1901 for Federation, we are proud to see completion nearing."

The Chatswood building served as the ANZ headquarters with all corporate administrative functions such as HR, marketing and finance. It was also the NSW sales office, and housed Fujitsu's Japanese-English translation team. At the same time Fujitsu also built a new Melbourne headquarters, at 607 St Kilda Rd. Both buildings were built to Fujitsu's specifications.

But Fujitsu kept growing, to the extent that these offices became too small. The NSW operation moved to a new complex in at Riverside Corporate Park in North Ryde in 1997, while headquarters moved back to North Sydney, to central location above North Sydney Railway station. In its 40th





### Fujitsu is, in a very literal sense, part of the Australian and New Zealand landscape

Corporate Park

BELOW The Gauge
in Melbourne's

**Docklands** 



anniversary year the North Ryde office is about to move again, up the road to an impressive new office tower at 118 Talavera Road in Macquarie Park.

The New Zealand operation moved to 141 The Terrace in Wellington in 2001. In 2008 Fujitsu's Victorian office moved into The Gauge in Melbourne's Docklands, designed and constructed by Lend Lease. It is one of only three 6 Star Green Star Rated buildings in Melbourne — the highest environmental rating able to be achieved by an office building in the commercial property sector.

The Gauge is one of Melbourne's most impressive office buildings. Floor planning locates staff at the perimeter of the spaces, where daylight and views are prominent. The carefully planned internal shared spaces complement the exposed structure of the building as well as the day-to-day working environment of its users.

The level six reception features Fujitsu's infinity logo embossed into a curved timber wall, with interactive LCD screens used as a promotional tool. The digital media centre next to reception is complete with motion sensors to enhance the experience of what is on display. External signage incorporates photo voltaic panels that operate from their own solar power. Environmentally innovative furniture, colourful fabrics and striking finishes add impact and contrast with the clean lines of the interior and the docklands views beyond.

Fujitsu's corporate signage has become a feature of most large Australasian cities. Fujitsu is, in a very literal sense, part of the Australian and New Zealand landscape. State Library of Victoria brings

Ned Kelly to life

The State Library of Victoria brought Ned Kelly to life with dazzling 3D animations and other multimedia presentations using advanced media distribution software and display technologies from Fujitsu Australia.

**THE PRESENTATIONS** were featured at the Library's 'Kelly Culture: reconstructing Ned Kelly' exhibition, which ran from 28 February to 25 May, 2003. The exhibition attracted more than 5000 visitors in its first three days of opening.

The centrepiece of the multimedia display was a 3D model of the famous bushranger's armour created by Melbourne firm Metraform. The model was shown on a 50in Fujitsu plasma screen, hung vertically in portrait mode. The presentation ran for six

minutes at a time, letting visitors see the suit from every angle and learn how it was made.

Another screen showed a 70-minute film about Ned Kelly. Two multimedia kiosks featured interviews with Booker-prize winning author Peter Carey, a video clip of 'Our Sunshine' by singer Paul Kelly and other material relating to Kelly, such as TV ads and the opening ceremony of the Sydney Olympics. A touch-screen kiosk contained a jukebox full of Ned Kelly-related songs.

Driving the displays was TELentice, a



### **CUSTOMER PROFILE**

State Library of
Victoria

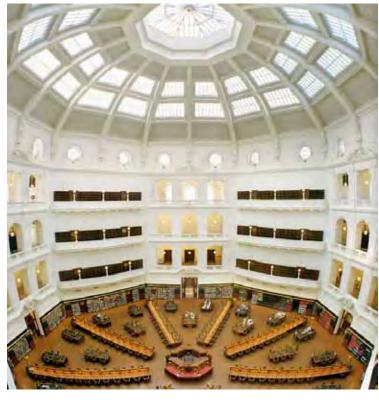
FAR RIGHT NED KElly's
armour



powerful software application developed in Australia by Fujitsu. This system provided the Library with greatly increased flexibility and control over sophisticated multimedia content.

"With TELentice we can program and schedule all multimedia content in advance and easily make changes to content items such as film credits," explained Edwina Portelli, Exhibitions Manager, State Library of Victoria. "Previously all our multimedia displays were standalone and we'd have to set them up to present a continuous block of material."

The flexibility to control display schedules and alter presentation content greatly improved the Library's ability to support events that occurred outside normal exhibition hours, such as school group tours, corporate hospitality events and even rock concerts.





# Fujitsu New Zealand 2000 to the Present

Like its Australian counterpart, Fujitsu New Zealand grew strongly in the 21st century. It gained many new customers, becoming one of New Zealand's largest ICT services companies.

BY THE TIME FUJITSU Australia chief executive officer Philip Kerrigan announced his new executive management team in early 2000, Bill Beale was Fujitsu New Zealand Managing Director. His team enjoyed success with Connect 2000, which won the title of Most Successful Project Implementation of the Year at the Computerworld Excellence Awards Dinner on 22 June 2000.

Restructuring in 2001 led to Managing Director Bill Beale's replacement by a country manager. Beale had been head of Fujitsu New Zealand for four-and-a-half years by January 2001. KS Tan, General Manager of Fujitsu Australia subsidiary Southmark Solutions Australia, relocated to New Zealand to manage the operation until a new general manager was appointed.

At the Accident Compensation Corporation (ACC) a ninemonth project began to design and pilot a standard desktop and server image using Fujitsu's net image product, which was deployed to 2500 workstations and over 100 servers at ACC's offices nationwide. By 2001 Fujitsu New Zealand was the eighth largest NZ vendor, and aiming to be in the top two

within three years. To this end it appointed a new general manager for New Zealand: Chris Brice was the former head of the company's services business.

Customer wins for Fujitsu New Zealand in late 2001 included Transpower's IT and telecommunications support for Hamilton and Christchurch, previously provided by Compaq. Fujitsu New Zealand already had a Wellington support contract for the owner and operator of the country's national electricity distribution network.

Fujitsu New Zealand began looking for data outsourcers in 2002, having decided not to follow its Australian counterpart into buying data centres. "In New Zealand, we built a business case for a data centre, but found there isn't a shortage of data centre capability here," said Brice, who also became an executive officer of the Information Technology Association of New Zealand (ITANZ) in that year.

By then Fujitsu New Zealand's clients included the Department of Courts, Department of Conservation, Transpower and

Chris Brice, General Manager 2001-2005



Tourism Holdings and. That year it also assisted the Waitaki District Council, in the Canterbury and Otago regions of the South Island, to develop an IT strategy to support service delivery.

A 2004 restructure led the company to look at outsourcing and reorganise its sales force into industry verticals instead of geographies. More big wins followed, including the re-securing of the Department of Conservation outsourcing contract for a further five years; a deal worth between \$4 million and \$5 million annually.

In 2005 the title was changed from General Manager to Managing Director to reflect New Zealand's growing autonomy. First Managing Director was Joel O'Halloran, the Fujitsu Australia Sales Manager, who relocated to New Zealand.

The success of Infinity Solutions in the NZ market and its reputation for a flexible approach to implementations had piqued Fujitsu New Zealand's interest by 2007. In October Fujitsu New Zealand's offer for Infinity Solutions was ratified by Infinity's board. The company announced a new managing director, Stuart Stitt – previously Infinity's chief financial officer and founding partner.

Jo Healey, interim manager until Stitt's appointment, retained the role of general manager sales and service delivery. The Fujitsu New Zealand and Infinity merger was completed in October. A new management structure was designed to take full advantage of skills in both organisations.

In 2008 local government specialist Civica acquired Fujitsu's local authorities business in New Zealand and Australia, including Fujitsu's local authorities customer base, intellectual property rights and associated assets. Then in 2009 the Department of Labour selected Fujitsu New Zealand to manage its servers and related infrastructure and services.

A five-year A\$200 million deal between Qantas and Fujitsu New Zealand for end user support services, signed in April, led to the building of a new global delivery centre in Auckland's Khyber Pass. Fujitsu New Zealand was also in the process of expanding its Wellington service centre, creating 10 new positions to provide technical support to BOC Gases, whose service desk had relocated from Sydney in October.

In December 2009 a consortium including Fujitsu New Zealand, TelstraClear and Transfield Services announced it was taking over Meridian Energy's ICT business from a group of vendors including Telecom's Gen-i, ABB and HP, with the aim of reducing costs.

Fujitsu New Zealand was appointed to a 2012 panel, along-side vendors Datacom and Gen-i, to provide IT Managed Services to government agencies. Fujitsu have since been selected by the Ministry for Primary Industries (MPI) and the Ministry of Justice as their IT Managed Services provider.

In 2013 the Fujitsu New Zealand retail team bid for and won a two year in-store infrastructure project at Foodstuffs.

Further cementing its capability and experience in the retail sector. Other retail customers include Progressive, Domino's Pizza, Specsavers, Just Group, McDonalds, Ralph Lauren, Chevron, ANZ Bank and Air New Zealand.

Managing director Jo Healey has set her sights on the cloud with New Zealand business demand for increased mobility in mind. Those who've been with the company long enough to remember ICL, mainframes and computer bureaus point to the telling similarities between the early days of computing and the 21st century.

It isn't that technology has closed a circle, rather that Fujitsu New Zealand has the accumulated expertise to start shaping tomorrow.



Fujitsu's stand at the CIO summit in Auckland, 2011

# The Australian Electoral Commission

The AEC is responsible for conducting federal elections and national referendums. It maintains the Commonwealth electoral roll of over 14 million voters and electronic returns applications, which contain sensitive personal data.

The AEC's significant public communication and education role is supported by its Internet presence, which relies on critical high volume, robust and scalable ICT systems. While the AEC plays a key role in managing electoral roles, the organisation really comes into the spotlight during a Federal election, where it is called on to provide a seamless experience with timely reporting for the 14 million Australians who vote.

The federal election is an incredibly demanding event, held approximately every

three years. At election time the resources of the AEC are stretched to the limit as it coordinates an event that has the attention of the entire Australian population.

The statistics of the 2010 election illustrate the magnitude of the task - 1198 candidates, 7,700 polling places, 15 km of data cabling in the national tally room, a 500 agent election call centre, and 20,000 pages on the Virtual Tally Room (VTR) website.

The VTR website has to be seamlessly updated every 90 seconds on election night



#### **CUSTOMER PROFILE**

The National Tally Room at

the 2010 Federal election

with split-second accuracy. The system has to service up to 800 million website hits and the Internet connection has to manage over 850M/bits of continuous traffic during election night, without error.

As the security of private information and the authenticity of the results were critical, the AEC's requirements mandated that the physical Secure Internet Gateway (SIG) location achieve and maintain a DSD Gateway Certification to the 'protected' level.

"If the integrity of the VTR was compro-

mised, the reputation of the AEC would be tarnished as an impartial provider of electoral services to the Australian people," said Tim Courtney, Australian Electoral Commission CIO. "We only get one opportunity to get it right."

Fujitsu provided a Defence Signals Directorate (DSD) accredited Secure Internet Gateway (SIG) and Web Hosting Service (WHS). The project was underpinned by an absolute requirement for a robust project delivery, service management and operation within an ITIL aligned framework.

The fully managed SIG and WHS provided the backbone for communication links to Internet-enabled AEC business systems including external e-mail, web hosting of critical AEC applications and information. It also creates a virtual tally room, enabling on-line access to federal election and referendum results, and web browsing and remote access for external business to business connectivity.

Fujitsu and the AEC collaborated to design, deliver and manage the SIG and WHS within an exceptionally challenging timeframe due to the early timing of the 2010 Federal election. To greatly improve the success of this complex project, Fujitsu stringently adhered to industry standards, and excellent teams were allocated from both organisations.

The solution provides the AEC with hosting for the electoral roll and VTR systems from

two geographically dispersed Tier III data centres, server and storage monitoring and management, network management, and SIG services for both production and disaster recovery environments.

The methodologies employed by Fujitsu maintained control in the high pressure environment of the project to ensure the AEC had a successful transition at the commissioning of its SIG and WHS. The use of the Fujitsu PRINCE based project management methodology provided a framework for the planning, monitoring, reporting and control activities necessary to achieve the delivery of project products and services to specification, on time and within budget, and to the expectations of the AEC.

The Fujitsu Business Management System provided an ISO9001:2008 certified approach to the management, development, and delivery of applications, infrastructure, systems integration and services. The delivery went without error and proved Fujitsu's approach and execution that was supported by robust service management principles, process and governance was entirely suitable for the requirements of the project.

On election night the project team maintained constant communication between the key sites including the four data centres, the National Tally Room as well as the AEC national office in Parkes, ACT. As is often the case, the success was measured by remain-

#### **CUSTOMER PROFILE**

ing 'unnoticed', and providing the service and delivery that would support this critical event.

The first polling booths closed at 6.00pm and by 6:30pm the initial results began to be published online at the VTR. While results were being updated every 90 seconds, monitoring calls on the infrastructure including Internet bandwidth utilisation, server CPU performance and Intrusion Prevention System behaviour were being transmitted every 15 minutes.

Fujitsu in partnership with AEC provided a seamless service, meaning that on Election Night, the election result was the headline news, rather than the ICT service. The passion within the project gave Fujitsu key insights info the service management regime needed, at all stages through the service lifecycle, to support critical ICT services with secure environments.

One of the AEC's key business drivers and operating principles is that of collaboration. It was this principle that drove Fujitsu's continued journey to deliver the NSW State Election on the 26 March 2011. This engagement between the AEC, Fujitsu and the NSW State Government demonstrated Fujitsu's collective appetite and ambition. The delivery went without error and it proved again the value of an approach and execution supported by robust service management principles process and governance.

"If the integrity of the VTR was compromised, the reputation of the AEC would be tarnished as an impartial provider of electoral services ... we only get one opportunity to get it right."

#### **VOTING FOR UNIX**

Fujitsu has received another vote for its ability to supply UNIX solutions to the Australian marketplace. The Australian Electoral Commission (AEC) has recently purchased two FACOM A-80 supermini computers which will be installed in Western Australia. These will provide office automation and payroll processing for the 15 electoral divisions in Western Australia.

'The A-80s will reduce some of the mundane duties currently undertaken by divisional office staff' said Ms Barbara Bagley, Assistant Director Computer Services, AEC. 'This will free them to attend to their most important tasks, maintenance of the electoral roll and at election time, the conduct of the election.'

"AEC chose Fujitsu because their total proposed solution to our problem was both innovative and cost effective"



Australian Electoral Commission Computer Services staff overseeing the processing of results during the 1988 referendums.

and terminal emulation to the Department

Bagley. "We wanted to run UNIX and the A-

The AEC is a long time Fujitsu customer – It used Fujitsu minicomputers in the 1988 Federal



#### Fujitsu today is a melting pot of many organisations.

**FUJITSU AUSTRALIA NEW ZEALAND** has grown both organically and through acquiring other companies. Its many acquisitions have all been important to the strategic direction of the company, and have all been successful.

Phil McCormack, currently FANZ's Executive General Manager of Strategy, led many of the acquisitions. "There was enormous focus on getting the integration right," he says. "This meant developing joint teams and ensuring we planned well and executed well. "People, process and customer retention was key, as was ensuring we melded the culture of the companies we acquired. Fujitsu today is a melting pot of many organisations."

#### Southmark and Logical Solutions

In the 1990s the mainframe market had started to decline and Fujitsu was moving more strongly into services. With the massive growth in the personal computer a natural extension of Fujitsu's operations was into PC and networking sales and service.

Fujitsu was a major PC supplier in Japan, but had little local expertise. A logical solution was found in Logical Solutions, a Sydney based PC company. Fujitsu acquired two

thirds of the company in 1993, though it continued to run as a separate business. It bought the remaining third in 1996, when it also acquired New Zealand based PC services company Southmark Computer Systems.

Initially the two companies were differentiated — Logical solutions expanded into outsourcing and systems integration, while Southmark focused on vertical markets, especially education and government. It also has a sizeable small business practice.

But their scope of operations converged over time and in 1997 the two companies were merged to form Southmark Solutions, a wholly owned subsidiary of Fujitsu Australia New Zealand. Its focus moved further to higher end systems integration, and after five years operating under its own brand, Southmark Solutions was integrated into Fujitsu in April 2001. Because of its high brand recognition in New Zealand, Fujitsu's systems integration operation there retained the name Fujitsu Southmark.

Logical Solutions was founded in Sydney in 1987 by Ted Keating, Richard Beswick and Murray Scott. Legend has it that the seed capital came from a win on a greyhound race. It be-

gan as an Apple dealership and quickly expanded interstate, with Ted Keating moving to Brisbane to start the Queensland operation. By the time of its acquisition by Fujitsu it had annual revenues of \$50 million, seeling equipment from a range of vendors and with a booming services business.

Southmark came into Fujitsu when through the ICL acquisition in 1993. ICL NZ had acquired it in 1986 and continued to operate it as a separate business. A separate Southmark business in Australia (formerly known as Co-Cam computers) was acquired in 1997.

#### DMR

DMR Consulting was an ICT consultancy business with its origins in 1973 in Montreal, Canada. The name was an acronym of the first letter of the surnames of the company's founders.

DMR came into Fujitsu as part of the incorporation of Amdahl in 1999. Amdahl had acquired DMR in 1995, but had maintained its name and identity. DMR operated as a separate company in Australia until it was incorporated into Fujitsu's service business in 2004. In most of the rest of the world it had become Fujitsu Consulting in 2002.

was very good fit for Fujitsu.

#### Atos Origin

In October 2004, as part of its continuing move into services, Fujitsu Australia acquired the Australian operations of Atos New Zealand's interest by 2007. Origin, a French ICT outsourcing and services company with 140 employees in Australia. Atos Origin was a major SAP implementation partner, and SAP's 'Best ERP Implementation in December 2013. Whalley says Infinity took more of an infor 2003' in for its work at Airservices Australia.

ness of Dutch electrical giant Philips, which was one of the original founders of Origin – which merged with French company Atos to form Atos Origin in 2000. As part of the deal flexible in the areas of contracts." Fujitsu inherited the Philips building in North Sydney, which is now Fujitsu's ANZ headquarters. Atos Origin also brought its Melbourne data centre into Fujitsu as part of the deal.

SAP implementation methodology,, which could reduce the times of SAP implementations by more than a third. Atos Origin Australia Managing Director Jean-Pierre Deruddere joined Fujitsu as Executive General Manager for Enterprise Solutions.

#### **Infinity Solutions**

In September 2007 Fujitsu acquired mid-market New Zealand outsourcer and systems integrator Infinity Solutions. Infinity had been formed in 2000 in a deal put together by a team formerly with Brierley Investments team who created the company from smaller rivals Trilogy Group, Madison Group, Quanta Systems and Comtex.

2005 — increasing it to NZ\$4.16 million compared with New Zealand, based in Sydney.

DMR specialised in methodologies, outsourcing and con- NZ\$1.9 million for the previous year. While the result exceedsulting and application services for larger enterprises — those ed expectations, Infinity CEO Stuart Robb at the time it was likely to have been running mainframe computers. As such it only "adequate" and not outstanding on operating revenues of NZ\$65.5 million. Nevertheless, the revenue figure represented a 19 percent increase over 2004. Infinity Solutions' commercial success in New Zealand and its reputation for a flexible approach to implementations had piqued Fujitsu

Bob Whalley is Fujitsu NZ's bid manager. He came to Fujitsu from ICL and will have been with the company 45 years formal dot-com approach to business, whereas Fujitsu was Atos Origin Australia had its origins in the consulting busi- inclined to be risk-averse. "Infinity believed in flexibility and being able to be totally adaptable in their approach to the way they handled customers and they were probably more

The focus of the Infinity acquisition was on geographic coverage, said Fujitsu Australia and New Zealand CEO Rod Vawdrey. "This acquisition will enable us to effectively com- Supply Chain Consulting Fujitsu was able to marry Atos Origin's skills with its FlexFrame pete in today's increasingly competitive, global marketplace, Fujitsu's successful SAP practice was extended even further as Infinity Solutions' full end-to-end capabilities, strong private sector customer base, and extensive footprint of office Consulting for \$43 million. Supply Chain Consulting was a locations across the country, perfectly complement Fujitsu's major SAP implementation partner with substantial operaexisting business in New Zealand."

Fujitsu NZ's offer for Infinity Solutions was ratified by Infinial development and support centre in the Philippines. ty's board in October 2007. A new management structure for the combined organisation took full advantage of skills from In 2006 it had itself acquired Viewlocity, an Australian supply both. The new managing director of Fujitsu New Zealand was Stuart Stitt, who had previously been Infinity's chief financial officer and was one of its founding partners. Jo Healy, who locity, but spun it off into a separate company again. had headed Fujitsu in New Zealand (and who remains its managing director), retained the role as general manager Infinity had more than doubled its profit in calendar year sales and service delivery. Stitt is now CFO of Fujitsu Australia ternational operations have subsequently been absorbed by



with the 2009 acquisition of Melbourne based Supply Chain tions in Australia and throughout South East Asia, including

Supply Chain Consulting was founded in 1999 by Tony Carr. chain management and carbon emissions software provider that had expanded internationally. Fujitsu did not keep Ve-

At the time of acquisition Supply Chain Consulting had 400 staff, most of them in the Philippines and Thailand. The in-Fujitsu's software business.

## The KAZ Acquisition

Fujitsu Australia's largest and most important acquisition occurred in March 2009 when it paid \$200 million to buy KAZ Group from Telstra. The deal nearly doubled the size of Fujitsu in Australia.

**IT HAPPENED ONLY** a week after the acquisition of SAP implementation partner Supply Chain Consulting. With a powerful left jab and a knockout right hook Fujitsu became, overnight, a heavyweight in the fast growing Australian ICT services market.

Fujitsu had been actively pursuing a move into services since the decline of the mainframe business in the early 1990s. The incorporation if ICL into Fujitsu's global operations in 1993 had been the first major step along that path, which Fujitsu had been following ever since. But it was the KAZ acquisition, more than anything else, which proclaimed the strategy's success.

"This investment confirms Fujitsu's commitment to invest in and grow its Australian business as well as boost Fujitsu's position in the Australian market," said Fujitsu Australia CEO Rod Vawdrey when he announced the deal. "This acquisition makes Fujitsu the third largest ICT company by revenue in Australia, with a team of nearly 5,000 across the country.

"The strength of KAZ's existing business and the synergies it brings to Fujitsu will deliver new and exciting commercial opportunities. Fujitsu's expanded customer base and enhanced end-to-end capabilities also bring a new level of competition to the Australian market creating better value for existing and future customers," said Vawdrey.

"It provides new opportunities in the Australian market. With a strong track-record working with Australian governments, particularly at the state level, the acquisition of KAZ gives Fujitsu enhanced service capabilities for public sector opportunities and a strong physical presence in Canberra."

The deal also created a strategic alliance between Fujitsu and Telstra, building on their strong existing relationship that dated from their cooperation on ISDN PABXs in the 1980s. Telstra Enterprise and Government Group Managing Director David Thodey said Telstra was selling KAZ because it no longer considered ownership of an ICT services business as a core part of its strategy.



"... the acquisition ...
gives Fujitsu enhanced
service capabilities
for public sector
opportunities"

LEFT Peter Kazacos, founder
of KAZ Computer Services

CENTRE Rod Vawdrey was CEO of
Fujitsu Australia when it acquired KAZ
RIGHT Mike Foster was head
of KAZ within Telstra, and is
now Fujitsu Australia CEO

It is believed Thodey wanted to keep KAZ within the Telstra fold, but that the CEO at the time, the controversial Sol Trujillo, wanted the company to concentrate on telecommunications. Thodey subsequently became CEO of Telstra after Trujillo left the company just two months later, leading to speculation he would have retained KAZ, and that Fujitsu bought it just in time.

KAZ Computer Services was founded in Sydney in 1988 by Peter Kazacos, who had started in the IT industry ten years earlier as an IBM AS/400 consultant. His new ICT service company was an immediate success, and in the 1990s grew to become the largest wholly Australian owned private company in the ICT industry. It listed on the ASX in 2000.

By 2004, despite the tech slump, KAZ had grown to \$350

million in annual revenues. In that year Kazacos sold KAZ to Telstra for \$333 million. He has since become a venture capitalist and philanthropist, and is one of the best known and most respected figures in the Australian ICT industry.

Under Telstra, KAZ bloomed and at its peak employed 4,000 people. During most of its time as Telstra's ICT services division it was managed by Mike Foster, who is now CEO of Fujitsu Australia. Foster joined Telstra from EMC, and was instrumental in the company's decision to acquire KAZ. He was also an important part of the sale of KAZ to Fujitsu.

Foster did not move to Fujitsu as part of the acquisition, but came in later when CEO Rod Vawdrey asked him to join the company to help with the integration process. That was so successful that he subsequently replaced Vawdrey as CEO in 2011.







## Meridian Energy: ICT Sustainability Footprinting

MERIDIAN ENERGY is New Zealand's largest generator of renewable energy. It also retails power nationwide and generates around 30 percent of the country's electricity. Meridian owns and operates seven hydroelectric power stations, one wind farm in the South Island and three wind farms in the North Island.

Meridian had implemented a number of sustainable ICT programs and was trying to find further ways of achieving global best practice and keeping its leadership position as one of New Zealand's most sustainable companies. It had already achieved significant energy efficiency savings across its business. In IT there were programs in place to move staff from desktops to energy-efficient laptops. There were also initiatives focused on recycling, as well as staff education around energy conservation and switching off PCs at night.



#### **CUSTOMER PROFILE**



"The whole Quick Start process was a real eye opener to the future possibilities of what is achievable in terms of sustainability in our ICT. The benchmark report really gave us something to strive for and showed us how to get there."

Alison Howard, Sustainability Performance Advisor, Meridian

The challenge for Fujitsu was to identify ways in which Meridian could improve its performance, helping it to achieve sustainable ICT best practice and identify new sustainability initiatives.

The Fujitsu Consulting Sustainability team conducted an ICT Sustainability Quick Start, an assessment tool including interviews with stakeholders, provided a global benchmarking analysis, current IT sustainability state and a detailed strategy on how to achieve best practice in sustainable IT. Using knowledge amassed from global benchmarking reports, Fujitsu's consultants were able to benchmark Meridian against over 1000 other companies

across seven countries and specifically against other utilities across ANZ, providing a detailed roadmap towards achieving best practice.

A review of the asset register and inspection of the Wellington Data Centre was conducted to help gain a true understanding of ICT's total footprint. Overall, Meridian compares well, outperforming its peer groups with a total average score of 60.5 percent, coming in at 166th place on a global scale of 1000 companies surveyed. Global best practice is identified as 80 percent. Meridian now has an opportunity to become the first New Zealand company, as well as the first utility in the world, to achieve global best practice.

# The Present and the Future

Fujitsu is a major player today, and will be an important force in the future. Its technologies and strategies are geared to tomorrow and its vision of a Human Centric Intelligent Society.

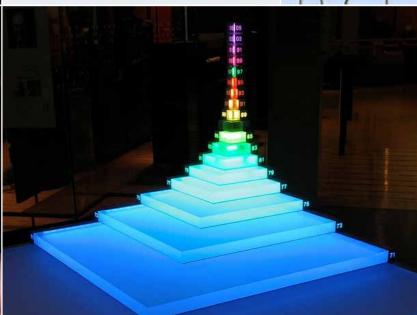












**IN COMPUTING**, the past is not always a guide to the future. But there are underlying factors governing the evolution of ICT. The best known of these is Moore's Law, which explains why computers get cheaper, faster and smaller at a rapid rate.

Similar laws apply to things like bandwidth, data storage, and screen resolution, and other aspects of the technology. They continue to evolve at a rapid rate, enabling new device types and new classes of application – now invariably shortened to "app" – to proliferate. This in turn enables – and often enforces – new business models and new ways of dealing with customers, business partners and stakeholders.

The technology improves exponentially, but the human capacity for adaptation proceeds at a much slower pace. The role of the successful ICT company is to bridge that gap. That is Fujitsu's philosophy, which is why it has become a stronger and stronger player as many of its erstwhile competitors have withered and died.

It is impossible to predict what will happen in the future. The only certainty is that it will be very different from today, largely because of the changes wrought by information and communications technology. In the near term horizon we can safely predict a vast increase in cloud computing, greater bandwidth, more powerful portable (and wearable) devices, and a continued movement of the centre of gravity of ICT from the enterprise to the individual.

But the basics of life – and of business – remain the same. The eternal truths of personal happiness and fulfilment, and of commercial success, will never fade. The role of ICT has always been that of an enabler, something that improves or business and personal lives by making tasks easier, and opening new ways of doing and seeing things.

Fujitsu as a company is now 80 years old. It has been in Australia and New Zealand for half of that time. Its history is one of adaptation and of innovation, and of seizing new opportunities as they occur. One such opportunity was its expansion into Australasia, all those years ago.

There will be many more opportunities in the future.



Fujitsu in the 21st century is one of the top three global ICT companies. It is also the most diverse, covering the entire stack of hardware, software and services.

**FUJITSU IS THE WORLD'S** most diverse computer company. It makes microchips, mobile phones, tablets and PCs, and mainframes and supercomputers. If all its software activities were spun off into a separate organisation, it would be one of the largest software companies in the world.

In Australia and New Zealand Fujitsu is also one of the leading ICT service companies. From strategic consulting to application and infrastructure solutions and services, Fujitsu Australia and New Zealand has earned a reputation as a single supplier of choice for leading corporate and government organisations.

Fujitsu has now been established in the region for 40 years. Although its business has evolved over that time there are some things that have not changed — especially Fujitsu's focus on working with its customers to achieve their business goals.

With over 5,000 employees in the region, working from over 100 locations, Fujitsu's staff are never far from their customers. This is supported by a major global organisation. Fujitsu is a leading provider of ICT-based business solutions worldwide, with approximately 170,000 employees supporting customers in over 100 countries.

Fujitsu combines this worldwide pool of expertise with innovative systems and solutions to deliver added value to its customers. Globally, Fujitsu invests over US\$2 billion in research and development annually in all aspects of ICT, including services, products, consumer technologies and supercomputing research.

Fujitsu's management structure encourages autonomy and the ability to make major decisions quickly. The local management team is empowered to respond quickly to customer demands without the multiple levels of international approval often required by its multinational competitors. A recent employee engagement survey found that a high percentage of Fujitsu's staff feel they have the autonomy to do their job effectively — significantly higher than the national average in the industry.

Established in the region for 40 years, Fujitsu is an integral part of Australasia's ICT landscape. It continues to invest in the local region through its people, capabilities, infrastructure and local R&D capability. Fujitsu makes a significant contribution to the local economy and to the local ICT industry. Fujitsu places a high priority on attracting and retaining

staff and fostering a high performance culture focussed on helping customers achieve their desired business outcomes.

Fujitsu's significant investments in the region include state-of-the-art data centres and a local cloud offering that caters for the unique needs of organisations in the region. Fujitsu has one of the most mature data centre capabilities in the region, with a footprint of over 30,000 square metres. This forms a significant part of Fujitsu's global total of over 100 data centres, and provides the underlying platform for Fujitsu's local and global cloud capabilities.

Fujitsu also operates a significant R&D facility in Australia, which plays a key role in development of Fujitsu software products for the worldwide market. Fujitsu Australia Software Technology (FAST) provides a unique opportunity for systems and enterprise application integrators, software designers, developers, solution architects and project managers in Australia to participate in key projects on a global scale.

Many enterprise and government organisations across Australia and New Zealand rely on Fujitsu's managed services to ensure the reliability and availability of their ICT systems and networks. Fujitsu's approach to managed infrastructure services leverages ICT to improve efficiencies, reduce the total cost of ownership (TCO) and minimise risk.

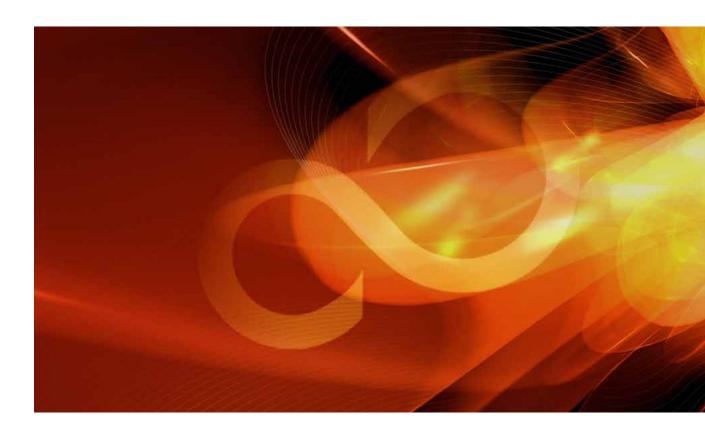
Fujitsu Australia and New Zealand recently announced its third consecutive year of growth as it reaps the rewards of its early investment in cloud capability and data centre infrastructure. Significant new account wins have also contributed to an accelerated growth of 5.8 percent, more than double the average growth for the ICT industry in ANZ.

CEO Mike Foster said: "Our strategy was to invest early in cloud and data centre infrastructure, and this commitment has paid off. Over the last 12 months we have signed a significant number of enterprise deals. We attribute our success to our ability to migrate customers' environments into our mature cloud platform, the flexibility in our offerings and our ability to retain data onshore if required.

"Fujitsu remains focussed on further growth, with continued investment in cloud, end-user computing and mobility both at the application and infrastructure level."

These investments are paying off. Recent new cloud customers include Asciano, CBA, Freehills, Grocon, Perpetual







FAR LEFT Fujitsu developed the world's first bendable colour electronic paper

LEFT In japan Fujitsu is a major smartphone supplier

Fujitsu has been in Australia for 40 years – more than half the company's life



and WA Health, which have all contributed to the milestone of the first Petabyte of data now committed to customers in the Fujitsu ANZ cloud. From the launch of its cloud services in 2010, Fujitsu Australia and New Zealand has to date completed a total data centre infrastructure spend of approximately \$170 million, \$60 million of which was spent in 2012 on the Noble Park facility in Victoria.

Fujitsu is also able to leverage its Japanese parent's global delivery capability to meet local customer needs. Australia's local data centre footprint is linked to Fujitsu's global network of more than 100 facilities around the world. Fujitsu has also made significant investments in its Global WAN, enabling greater leverage of its global data centre footprint.

Further investments in application development and managed services businesses broaden Fujitsu's continuing strength and commercial capabilities. Recent highlights include:

- A number of significant multi-year deals in government, transport and financial services verticals, including contracts with Perpetual, the NZ Ministry for Primary Industries, and the PeopleSoft CRM support contract with the WA Department of Child Protection.
- A major contract with Melbourne Water for a Maximo Applications implementation cemented Fujitsu's footprint in the utilities sector, leveraging from similar experience with Maximo projects at Sydney Water.
- Fujitsu launched its SAP Mobility solutions enabled in the Fujitsu Cloud, and further industrialised its Applications Management Services (AMS) solutions providing a more competitive, differentiated position in the market.
- Fujitsu continued to enhance its Digital Media Solutions business with new interactive user experience offerings through Near Field Communications and Facial Recognition technology. In 2012 Fujitsu boosted its already impressive portfolio in this area with new customers in the retail and financial services sectors.

Fujitsu has expanded its team by over 800 new team members in Australia and NZ over the last two years and is driving significant growth in Fujitsu's global delivery model.

- Supercomputing supremacy — Fujitsu was named as the successful bidder to design, build and support the fastest high performance supercomputer configuration in the southern hemisphere for the Australian National University. Worth \$26 million over four years, the supercomputer will take Australian research capacity to new levels in areas such as climate and weather, physics, astronomy, geosciences, chemistry and advanced materials.

To reinforce its commitment to customer satisfaction, Fujitsu Australia and New Zealand is measuring its success with a company-wide customer satisfaction program focussing on the Net Promoter Score. This program relies on independent 'Voice of the Customer' research and will look to drive high performance at the enterprise and account level, direct investment to address any customer concerns, and implement continuous improvement with benchmarked performance.

In addition, Fujitsu has expanded its team by over 800 new team members in Australia and New Zealand over the last two years, and is driving significant growth in Fujitsu's global delivery model.

Mike Foster says: "Our strategy is to be the clear market leader across cloud, end user computing and mobility solutions at the application, integration and infrastructure levels. It is our proven strength across these enterprise grade offerings, underpinned by bold investments in cloud and data centres that is seeing Fujitsu win extensive new business.

"By our constant innovation and commitment to driving customer satisfaction, we are able to cater to the evolving needs of our public and private sector customers and generate further growth."

Fujitsu is nearly 80 years old as a company, and has been in Australia and New Zealand for more than half of that time. Fujitsu's long history in the region in many ways mirrors the history of the local ICT industry — the transition from mainframes to smaller computers, the growth of ICT services, the digitisation of all media, and the merging of telecommunications and computing.

Fujitsu has been a constant through all these changes. It was here yesterday, it is here today, and it will be here tomorrow.

#### Fujitsu at a Glance – Globally

- The world's third largest ICT services company
- Nearly 80 years in business established in 1935
- More than 170,000 employees worldwide
- Presence in over 100 countries
- Serving 10 million plus customers worldwide
- Annual revenues over US\$55 billion
- Investing over US\$2.6 billion in R&D annually
- In excess of US\$1.1 billion investment in cloud computing
- Owner of over 32,000 patents
- Over 100 data centres worldwide.

#### Fujitsu at a Glance – Australia and New Zealand

- The third largest ICT company in Australia and New Zealand
- Over 5,000 employees
- Established for 40 years in the region.

## Australian National University

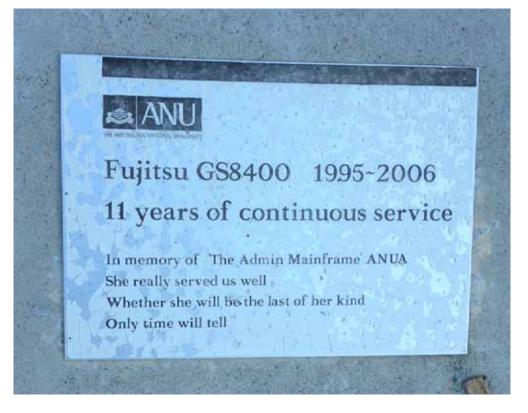
A memorial plaque for a previous Fujitsu computer at ANU. They become part of the family.

Established in 1946 by an Act of the Federal Parliament – with the mandate to undertake research in relation to subjects of national importance – the Australian National University (ANU) has carved out an enviable international reputation. Six decades on, research remains the core of all its endeavours.

FUJITSU'S RELATIONSHIP WITH ANU can be traced back to the 1980s. The links between the organisations have varied over the years, but the relationship has been constant and ongoing. In 1988 Fujitsu was commissioned to install a VP100 computer. It was intended as a new scientific computing platform, replacing temporary VP50 system. Immediately the university – which allocated time

on the computer on a quarterly basis – was swamped with demand.

Australian scientists raced to put in bids for time on the compute. What they were all seeking was access to the leading edge performance offered by the Fujitsu VP100. With slots on the computer highly prized, especially by chemists and astronomers at the university, some scientists reported that



#### **CUSTOMER PROFILE**

moving to the Fujitsu machine had delivered a 200 fold performance improvement in terms of its ability to handle scientific computing tasks.

Scientists at ANU in the 1980s were wrestling with challenging scientific problems such as modelling molecular structures and conducting epidemiological analysis of how diseases such as AIDS might spread through a population.

Today the processing speeds now needed by ANU and Australia's research scientists are orders of magnitude faster. The scientific challenges are just as significant, but they are considerably more diverse. Researchers are grappling with such applications as weather and climate modelling, computational chemistry, particle physics, astronomy, material science, microbiology, nanotechnology and photonics and increasingly collaborate on international investigations.

While the ANU had largely selected Fujitsu machines until 2000, subsequently a series of vendors of high performance computers were selected through the next decade including systems from SGI, HP and Oracle-Sun. But in 2012 Fujitsu returned to the ANU fold in grand style.

It supplied a \$25 million Fujitsu Primergy 1.2 Petaflop supercomputer to form the high performance core of the National Computational Infrastructure (NCI), which is hosted at ANU, with major funding support from the

Federal Government's Super Science Initiative. The computer is named 'Raijin', which means Thunder God.

The NCI is a partnership between ANU, CSIRO, the Australian Bureau of Meteorology, Geoscience Australia, a number of other research-intensive universities, and the Australian Research Council. The Raijin supercomputer is available to researchers across Australian universities and research agencies.

Raijin delivers a tenfold peak performance increase over NCI's previous Oracle-Sun supercomputer, which was rated at 140 Teraflops. It is the most powerful supercomputer in Australia – and the 24th fastest in the world, according to the Top500 Supercomputing list announced at the SC12 conference.

Raijin features around 57,500 core processors, 160 Terabytes of main memory, and 12 Petabytes of disk storage. It will be comparable in scale to about 30,000 desktop computers working together in parallel. As a general rule of thumb the power of supercomputers increases tenfold every three years, for about the same cost.

One of Raijin's primary uses is for computational chemistry – simulating chemical reactions. ANU and Fujitsu have been cooperating on computational chemistry since 1989, when an R&D arrangement was made between the ANU Supercomputer Facility and Fujitsu Japan (the program is known

The Raijin Fujitsu supercomputer at ANU.







#### **CUSTOMER PROFILE**

within ANU as 'Area 3). ANU researchers have been the recipients of many Fujitsu grants over the years.

Fujitsu secured the most recent supercomputer tender based not simply on current capability, but the future pathways that might allow ANU to scale from the current 'peta' to 'exa' scale computing expected to emerge by the end of the decade. Fujitsu has already built the K supercomputer, installed at Japan's Riken research institute, which is currently ranked the third most powerful supercomputer in the world.

For ANU, Fujitsu's international experience in the high performance computing field is critical as it also underpins the transfer of intelligence about how best to apply high performance computing to real world scientific issues.

In 2011 Fujitsu Laboratories of Europe and ANU announced their success in obtaining a three year Australian Research Council Linkage Project grant aimed at developing new techniques and mathematical software that can be applied to complex scientific problems with an initial focus on tsunami model-

ling and plasma physics. This is an extension of the Fujitsu sponsored Open Petascale Libraries initiative intended to create an open library of algorithms and software which can be applied to complex computing problems.

ANU in particular is developing a framework for algorithm-based fault tolerance, allowing software simulations to develop the immense resilience that will be critical as exascale computing emerges. Early applications of this include ANUGA, designed in association with Geoscience Australia to simulate tsunamis and storm surges, and

GENE, which will be used to perform plasma physics simulations, intended to provide insights regarding nuclear fusion, which may have implications for Australia's ability to generate sustainable energy sources.

In November 2012 the relationship between ANU and Fujitsu, was strengthened further when a memorandum of understanding regarding scientific and computing collaboration with Fujitsu Laboratories was signed by the University's Vice-Chancellor Professor Ian Young AO and the President of Fujitsu, Masami Yamamoto.









Today Fujitsu is the third-largest ICT provider globally and in Australasia. Its global scale and capacity includes access to more than 5000 staff across the region, including over 500 in New Zealand. It has 800 clients, serviced by nine offices countrywide and another nine service agency and delivery locations.

**FUJITSU'S BREADTH** of end-to-end technology services in New Zealand has grown significantly in recent years to include a comprehensive portfolio of local offerings: national field services, hardware and software procurement, licensing, application and infrastructure projects, testing services, complex transition and transformation services, and outsourced managed services. With the agility and nimbleness of a New Zealand centric organisation, Fujitsu New Zealand is able to embrace its global capabilities and international business 'centres of excellence' to bring thought leadership and world class capability to its New Zealand customers.

Fujitsu's New Zealand business has become a global leader for its IT managed services catalogue and management model, its partnering methodology and security offerings. Its messaging-as-a-service has already been implemented by a number of major customers and is now being deployed by others. Its track record is one of successfully enabling the best of New Zealand and the best worldwide products and services for its local customers.

Sustainability remains an important responsibility as a

New Zealand ICT provider, says Managing Director Jo Healey. But she's also interested in the evolution in data delivery and a global move in the focus of attention from infrastructure to apps. The future will place more emphasis on business and less on technology, she says. "The shift I've seen in my time in the industry has been from technology-centric thinking to partnering with our customers and truly understanding their business to enable the outcomes and drivers that they and their customers are seeking.

"Fujitsu's brand promise is on 'Shaping Tomorrow with you'. Organisations now more than ever are required to be future focused. Defining what tomorrow looks like. Being clear as to where you our customers need to go and how they need to get there."

Healey says this is not easy. "It requires leadership, vision, tenacity, insight, and clarity. At Fujitsu we believe we are uniquely positioned to bring local and global expertise to help our customers make the most of tomorrow. Our vision for the future is to unlock the value of information and harness technology to enable our customers to realise their vision.

"ICT is no longer simply a means of improving productivity,

but as a rich capability to deliver new experiences and value. The Internet has given rise to a digital world that exists virtually and is quickly converging with the physical world that we live in, generating infinite quantities of information.

"New knowledge born from the analysis of this information has the potential to transform our lives, a society where ICT supports people's activities and enables the creation of innovation. A world where people are free to achieve their full potential and feel secure, and where knowledge is continually harnessed to drive new value and support sustainable growth. Computing is progressing into a new human-centric era, where technology connects people rather than the other way round."

No one can accurately predict the future, even using the latest technology. But Fujitsu has the knowledge of business, the skills and resources to roll with the punches and take advantage of the latest technology developments to lead its customers into the next 40 years with confidence. Our vision won't be realised overnight, but Fujitsu will work with its customers and society to influence people, information and ICT.



#### FANZ – Shaping Tomorrow with You

**FUJITSU AUSTRALIA NEW ZEALAND** is an integral part of the ICT industry – and of the wider community. Fujitsu's brand is more than a corporate image. It represents a way of working that places people at the forefront of everything we do.

Although Fujitsu is a technology organisation we believe our main differentiator comes from the way we work with our customers and the way we interact with the community.

"Shaping tomorrow with you" is the key to our brand promise:

- "Shaping tomorrow" is all about looking to the future and helping our customers to shape their future through the application of people and technology.
- "With you" emphasises our focus on people in everything we do. It's a style of working which our customers tell us they very much appreciate. It's a truly collaborative approach, demonstrating a real understanding of business and society and working to create the future we all want harnessing the power of technology to achieve our goals.

Fujitsu is large enough to call upon billions of dollars' worth of investment in technology and industrialised ICT, yet agile and responsive enough in this market to respond to all challenges. Fujitsi believes in seeing all challenges through the eyes of the customer, and empowering our people to explore the unconventional and discover bold and ingenious ways to meet and exceed expectations.

This is the "Fujitsu Way". It is part of our DNA.



shaping tomorrow with you In 2012 Fujitsu announced the sponsorship of athlete Mitchell Pink in his quest for the Paralympics. Mitchell is currently a part of the Australian Paralympic Preparation Program and also holds a scholarship with the NSW Institute of Sport.

He has numerous Junior Australian Titles and is the current World Record Holder for Under 20s Long Jump for his classification. He is currently training for the IPC World Championships in France, and has already competed in world championships in Christchurch in 2011 where he came eighth in the long jump.

Fujitsu provides assistance to Mitchell to fund his travel and accommodation. In return Mitchell is a brand ambassador for Fujitsu, in much the same way that Alistair Presnell represents Fujitsu on the golf circuit.



**SOCIETY HAS A RESPONSIBILITY** to consider the impact its actions have on the environment and future generations. This responsibility extends to businesses such as Fujitsu. In fact businesses are in many ways best placed to enable the scale of change needed to address the significant challenges and opportunities presented to us in our ever changing world.

Humanity has benefited immensely from economic growth over recent years, as well as from great advances in science and technology. But this has not come without a price or without consequences. We must accept the risk that we are altering our climate systems and we therefore have to take action to mitigate the impacts.

While the risk seems high, I draw comfort from the human story. This is a tale of innovation, determination and above all rapid development and evolution. I believe that we have both the ability and capacity to meet the challenges of the future and enjoy a prosperous society for all.

Technology will be a key to shaping our future. As a company Fujitsu is working with our customers and with society to enable new and better ways of doing things, and this innovation will have sustainability as a key success factor. It is already one of the precepts of Fujitsu's R&D, and is also a central part of our brand promise — a 'shaping tomorrow with you'.

At Fujitsu we will deliver solutions that enable a positive impact for our customers and society whilst reducing the environmental impact of our own operations

#### Alison Rowe

Global Executive Director Sustainability

#### FANZ Environmental Management

FUJITSU HAS DEVELOPED an Environmental Management System (EMS) which currently covers the Fujitsu National Distribution Warehouse Centre, our six major data centres in NSW, Queensland, Victoria and Western Australia, together with head offices in Sydney, Melbourne and Canberra. Fujitsu's locally developed and managed EMS is ISO 140001 certified and forms the foundation for ongoing efforts to minimise the environmental foot print of Fujitsu's operations.

#### Reducing Greenhouse Gas

Between 2008 and 2012 Fujitsu has reduced the emissions from its local office locations by nearly 20% through the deployment of new technologies, greater staff awareness and more efficient buildings and use of office space. For business travel Fujitsu achieved an amazing 44% reduction in emissions on 2008 levels, a result that was enabled through the use of video conferencing technology, a move to more energy efficient fleet of vehicles and greater use of public transport.

Achieving or exceeding greenhouse gas reduction targets is an important milestone in Fujitsu's sustainability strategy towards 2020.

#### Sustainable Data Centres

One of the biggest environmental impacts of Fujitsu's operations is its data centres. Keeping customers systems in secure, fully redundant data halls, and keeping all this mission critical equipment at the optimum operational temperature means using a lot of electricity. In order to mitigate this Fujitsu has invested a large amount of money in world class, award winning, data centre facilities around the country that deliver superb energy efficiency.

Through this investment and the expertise of our data centre professionals Fujitsu was also able to meet its targets for energy efficiency at the data centres. Fujitsu's commitment to sustainability means it will continue to strive to improve its environmental performance, and ensure that Fujitsu is the leader in sustainable ICT in our market place.



## Grocon Group

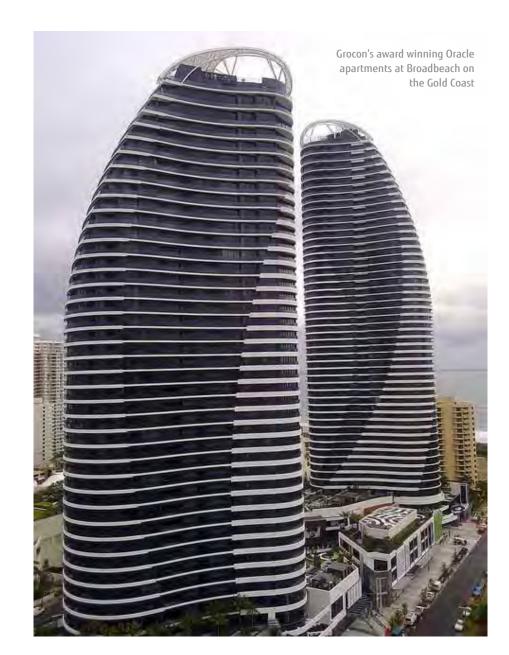
Grocon is the largest privately owned development, construction and funds management business in Australia.

**GROCON IS THE LARGEST** privately owned development, construction and funds management business in Australia. It specialises in large scale projects such as commercial office spaces for premium clients such as ANZ and Freehills, and Public Private Partnerships such as the new Victorian Comprehensive Cancer Centre (VCCC) for the Federal and Victorian Governments.

Some of the iconic landmarks created by Grocon include the Rialto Towers, Eureka Tower and AAMI Park in Melbourne, and No 1 Martin

Place and 1 Bligh Street in Sydney. On the Gold Coast, Grocon built the Oracle Apartments at Broadbeach, which were awarded a National Master Builders' Association prize in 2011.

Grocon was looking for a cost-effective and scalable solution for the agile management of IT services as part of a wider back-office infrastructure renewal initiative. The existing infrastructure was nearing the end of its lifecycle so the company was keen to look at new solutions that would be more flexible and cost effective.



#### **CUSTOMER PROFILE**



Grocon's Eureka Tower in Melbourne

"We were looking for a partner," said Grocon's CIO Rebecca Brockett. "We found that partner in Fujitsu. Fujitsu Cloud has helped us create a flexible infrastructure on which to build our business. It allows us to change our IT quickly and make our people more productive.

"Fujitsu presented us with a radical vision and we decided to accept the challenge because innovation is part of our corporate DNA. Fujitsu cloud has helped us create a flexible infrastructure on which to build our business, helping us change our IT quickly and our people to be focus on their jobs.

"Using Fujitsu's cloud solution we now largely host thin clients instead of desktop PCs or laptops, decreasing costs by around 50 percent and simplified support.

"Fujitsu's Cloud solution has encouraged us to think big, which is pivotal for us because that's the foundation on which the landmarks of the future will be built."





A highly reliable, global ICT infrastructure is essential to support the growing cross-border activities of people and companies. Fujitsu runs more than a hundred data centres around the world, including ten in Australia.

**THESE FACILITIES PROVIDE** customers in each region with high quality services, including cloud and hosting services to meet their needs. They are protected by advanced security features, such as room access control using surveillance and biometric authentication.

Fujitsu's data centres offer world-class facilities and carrier independent high-bandwidth access within secure and resilient environments. They host a variety of managed solutions for a diverse range of customers – from start-up companies looking for low-cost collocation or web-hosting through to large enterprises seeking to leverage Fujitsu's significant data centre assets.

Fujitsu also operates a global network of 24 hour service

desks to help customers solve any issues. Multilingual support is available in more than 30 languages.

In May 2012 Fujitsu unveiled a major upgrade to its data centre in the Melbourne suburb of Noble Park. The \$60 million investment by Fujitsu focused on security, connectivity and availability enhancements to provide Fujitsu's 2,000 Australian enterprise and government customers with increased access to secure hosting services. Noble Park is also one of the most energy efficient facilities of its size in the country.

CEO Mike Foster, said, "In the last few years Fujitsu has made significant local investments in new technology areas including data centres, cloud services, application development and managed services. We will continue to invest in ensuring that our customers have access to the best possible infrastructure in the region. The Noble Park upgrade is consistent with this strategy. The facility makes a key contribution to Fujitsu's global data centre capability."

The 6,700m<sup>2</sup> Noble Park facility was purpose-built for Fujitsu in 1988. Following its 2012 upgrade to Tier III standards, the design incorporates four main data halls suitable for cabinet and cage installations. Fujitsu data centres have a power usage effectiveness (PUE) target of 1.7. Fujitsu reports all greenhouse gas emissions produced by Noble Park, as well as all others in its Australian data centre network, to the National Greenhouse and Energy Reporting System (NGERS).

Fujitsu has actively applied and promoted environmental principles for more 20 years, since the introduction of its Environmental Protection Program in 1993, and has been recognised as a member of the Dow Jones Sustainability Index since its inception in 1999. Fujitsu's involvement in The Green Grid, a global consortium working to improve energy efficiency in data centre and business computing ecosystems,



provides valuable insights which are applied in the development of all data centre facilities and the delivery of superior ROI for clients while minimising the environmental impact.

In Australia, Fujitsu aims to save its customers over a quarter of a million tonnes of greenhouse gas emissions by 2014 from its outsourced data centre operations.

All Fujitsu data centres have been engineered using international standards of excellence. Through these standards, Fujitsu addresses the need faced by organisations to actively manage business risks associated with information security, ensuring appropriate controls are identified and implemented to protect information assets. Fujitsu's national standards of data centre certification or compliance are:

- Information Security Management Systems (ISMS) ISO 27001
- ASIO Technical Note 4 (T4)
- ITIL IT Service Management
- ISO 9001 Quality System

Fujitsu will continue to build its data centre capability through research, investigation, planning, accreditation and certification in conjunction with a number of partnering and acquisition programs.

TOP The data hall before equipment is installed

RIGHT An aerial shot of the Western Sydney Data Centre



#### Australia's Most Advanced Data Centre

In November 2010 Fujitsu, together with Bankwest, opened Australia's most advanced and environmentally sustainable data centre in the Perth suburb of Malaga.

The new multi-million dollar facility servics the booming Western Australian market, allowing Fujitsu to target growing cloud solution opportunities in Asia.

In 2102 the centre was significant upgraded with the addition of substantial cloud capability, an expansion of Fujitsu's Australia east coast cloud platform. Fujitsu is now the only major ICT vendor with a cloud capability on the east and west coasts of Australia. A direct cloud presence in WA also means that customers migrating enterprise applications or large databases can upload data more efficiently via the local connection.

Bankwest is a major user of the Perth Data Centre. CIO Andy Weir said: "This data centre will enable us to continue to develop and refine new and innovative ways of banking that will benefit our million-plus customers across Australia. It also allows us to progress consolidating and migrating our critical systems into the new facility over the next 12-18 months.

"It is a very significant investment and underlines our continued commitment to the Western Australian community and will ensure we continue to meet all our customer and regulatory requirements for security and privacy. It will also enable us to reduce our carbon footprint."

The 8,000m<sup>2</sup> complex provides more than 3,000m<sup>2</sup> of Tier III, highly secure raised floor space, three main data halls suitable for cabinet and cage installations, and three smaller data halls to be customised for companies requiring dedicated private suites.

Offering savings of approximately 20 percent on in-house operational data centre costs, the Perth facility is backed by sophisticated building control management systems that remotely monitor and adjust power settings throughout the complex.

It incorporates biometric and other security technologies to deliver maximum efficiency and superior data integrity and resilience. The facility also features sophisticated metering capabilities to support client compliance with energy legislation.

The Perth Data Centre will consume 30 percent less energy than standard facilities and its cooling system saves up to 80 percent in water use. The advanced design features of the new complex incorporate a hybrid cooling system which allows Fujitsu to offer free cooling as an option for customers over approximately eight months of the year. This can potentially decrease the cooling load by up to 50 percent. The use of ultrasonic humidifiers also delivers further cost

advantages as they require only 20 percent of the energy of traditional units.

The establishment of the Tier III Fujitsu Perth Data Centre meets all critical data governance and compliance requirements. Many cloud service providers are only able to offer data centres services from facilities located either outside Western Australia or internationally. This is a significant concern for many potential cloud customers, particularly government and financial organisations, as some data types cannot be legally stored outside the State, as they then fall under the legal jurisdiction of interstate or foreign governments.



The architect's plans for the Perth Data Centre



Toyota has presence in Australia extending over 50 years, and has been a customer of Fujitsu Australia since 1978. The two companies share a commitment to innovation, sustainability and continuous improvement.

TOYOTA IS JAPAN'S largest car company, and the third largest in the world. It has been manufacturing in Australia since the 1960s. Toyota Motor Corporation Australia (TMCA) is now Australia's market leader and largest vehicle exporter. Its factory in the Melbourne suburb of Altona produces a car every two minutes. Toyota Australia has approximately 4,200 employees, 2,500 of those at the manufacturing plant.

In 1978 Toyota engaged Fujitsu to support and maintain its mainframe environment. The relationship grew with various support and outsourcing agreements in the 1980s and 1990s, leading to a major agreement to provide service desk and desktop management in 2001.

In 2009 Toyota asked Fujitsu to help it assess its ICT risks and opportunities. Fujitsu conducted in depth interviews and used assessment tools to build up a clear picture of

the strengths and weaknesses of Toyota's ICT environment. Fujitsu helped Toyota formulate a sustainable ICT strategy which outlined a number of significant cost and greenhouse gas emissions savings.

In September 2010, after a competitive tender process, a new contract was signed making Fujitsu the largest single ICT outsourcer to Toyota Australia. This contract sees Fujitsu deliver a full first level service desk, management of the desktop environment (including migration from Windows XP to Windows 7) and management of the Netware environment. Fujitsu is also taking Toyota into the cloud, with a storage transformation program of Windows consolidation and virtualisation.

Toyota and Fujitsu's shared Japanese heritage informs and enriches the relationship between the two organisations. This is evidenced in their joint approach to innovation, and their commitment quality and attention to detail.

As Japanese companies, both Toyota and Fujitsu bring a culture of sustainability into everything they do. As Toyota CIO James Scott expresses it: "Our environmental responsibilities are paramount to our vision of a sustainable organisation. When selecting organisations to partner with, we look for this shared vision as one of our criteria. That made Fujitsu the natural choice."

The Japanese concept of continuous improvement, or 'Kaizen', was introduced to the Western world by Toyota, and is key to its manufacturing success. It is in the DNA of each organisation. Fujitsu maintains an active Continual Service Improvement Plan covering all facets of the Toyota account, which is shared with Toyota for feedback. In the past four years Toyota has twice awarded Fujitsu for outstanding supplier performance.

Toyota's mission is to 'deliver outstanding automotive products and services to our cus-

tomers, and enrich our community, partners and environment'. To achieve this in a market challenged by the high Australian dollar and increased overseas competition, Toyota's ICT systems need to be reliable, robust, cost-efficient, and of the highest availability possible.

They need to ensure the smooth functioning of the head office, manufacturing, parts distribution and dealership environments. They also require the flexibility to ensure Toyota's ICT environment can adapt to any changes in the business and take advantage of new technological advances.

The managed services contract provided Fujitsu with the opportunity to deliver this flexibility and cost-effectiveness to Toyota. "In winning the contract, Fujitsu was competitive and provided innovative options to consolidate the new business into a single agreement," says Scott. "Fujitsu did this using existing toolsets and management systems to drive greater ef-

#### **CUSTOMER PROFILE**

RIGHT Toyota Australia's first production vehicle, the 1964 Toyota Tiara BOTTOM RIGHT Celebrating Toyota's 3,000.000th vehicle in December 2012

ficiencies and cost savings across all of our ICT infrastructure."

A compelling example of this was the move of the Toyota TUNE Dealership Management System to a cloud-based environment, which will ensure far greater levels of availability, reliability and dealer data security. Moving TUNE to the cloud will see Toyota dealers experience faster software response times and increased data stability and security, which will greatly improve the user experience of the dealership management system.

Over the past three years, Fujitsu has consistently achieved or exceeded all system availability targets, not only for the TUNE system but across the entire Toyota support contract. "TUNE is critical to our business performance," says Scott. "We needed a leader in cloud services for this project and Fujitsu's Cloud Services will provide us with a robust and secure ICT strategy for this expanding application."

The flexible three year agreement enables use of the service on a monthly basis, with no

lock in term or contract fees if Toyota wishes to realign its technology strategy. The move to the cloud is a highly intelligent way for Toyota to capitalise on its investment in TUNE, and build in the flexibility needed as more dealers use the system.

Although their partnership in Australia has spanned 35 years, neither Toyota nor Fujitsu take the relationship for granted. They are constantly reviewing the spirit of their contract, and in December 2012 a 'working together' program was initiated by executives of both companies to ensure they continue to drive business performance improvements.

"A 'trusted partner' is not a term used lightly at Toyota," says James Scott. "One of our key foundations is to build long term partnerships with companies that share Toyota's values and beliefs. Toyota Australia considers Fujitsu Australia as a trusted partner, based on the last 35 years of a relationship that continues to grow stronger each day. I see this lasting at least another 35 years."







Fujitsu has a vision of computing. Fujitsu sees a world where people are free to achieve their full potential. Where they instinctively feel secure and in control. A world where technology is harnessed to drive new value and support sustainable growth. Fujitsu calls it the Human Centric Intelligent Society.



**OVER THE PAST** decades the world has been transformed by Information and Communications Technology. ICT has become pervasive, and it is becoming more so. Mainframes gave way to smaller computer, which transformed into networks, which evolved into the biggest network of them all, the network of networks, the Internet.

The Internet and its related technologies have enabled the introduction of a new, but evolutionary, stage of computing. The term 'cloud computing' comes from the usage of a cloud symbol to indicate the Internet in networking diagrams. It is represented as a cloud because all its components are hidden from the user – the network itself, the communications equipment, the protocols and software, and most importantly the large data centres that provide the processing and the storage.

Cloud computing is not a single technology – it is a group of technologies that are transforming the way ICT works and the way it delivers. The cloud is not yet ubiquitous. There are concerns about security and data governance. Bandwidth is often not sufficient for seamless operations. The old models have significant inertia, but the direction is unmistakable and the attractions inexorable.

## We are establishing an intelligent society, where people are able to exploit the benefits of new insights and knowledge



But cloud is the future, and Fujitsu is riding the wave as one of Australasia's – and the world's – leading suppliers of cloud infrastructure and cloud services

The Internet has given rise to a digital world that exists in the virtual space on computers and networks. The convergence of this digital world with our physical world carries the potential to transform our lives. Increasing quantities of information are being gathered through sensors and analysed in real time, using the digital world's computing power.

In the process, it is liberating and intelligently organising information that has previously been tied to the silos of individual systems. We are establishing an intelligent society, where people are able to exploit the benefits of new insights and knowledge.

But Fujitsu's vision is not something that can be realised overnight. It is a journey. We can only reach our destination by making steady progress. With the rapid increase of smart devices, a new model is penetrating the business world – one where users have fast, easy access to a wide

range of services. Fujitsu is providing highly reliable mobility solutions and services for business, while leveraging the strengths of human-centric ICT to support people.

Fujitsu has already developed a new business, offering corporate clients in Japan a highly reliable mobile service platform. This new service platform enables business users to securely access a wide range of applications from a single ID. Users can flexibly configure back-office business applications and data analytic capabilities using mobile applications in the front line.

In this way, Fujitsu supports the activities of mobile business users and professionals in a variety of fields such as marketing, maintenance, and health care. By converging the digital and physical realms, Fujitsu is developing services that support people, at any place and time, with optimised information delivered through smart devices.

Intelligent use of information is the key to transformation. In order to empower business and society, Fujitsu is providing both cloud services and on-premise software products

to maximise knowledge extracted from big data. Fujitsu's cloud service for big data provides an integrated package of the technologies required to analyse and process big data. Fujitsu has also commercialised software products that reflect the technologies and expertise it has gained through its extensive service.

In response to the proliferation of smart devices and other mobile products, Fujitsu is enhancing its authentication platforms with advanced technologies, including biometrics. It is strengthening its integrated management capabilities, encompassing device asset management, application and information management, and support services for theft or loss.

The next generation of ICT platforms will evolve into network-wide distributed computing, where computing resources are allocated and seamlessly connected over networks. Fujitsu's Intelligent Networking and Computing Architecture optimises the operation of computing, wide-area networks, and smart devices employed by end users. It achieves high

reliability on an end-to-end basis, on-demand service delivery, overall cost optimisation, and an enhanced quality of experience.

Fujitsu's logo incorporates the 'Infinity' symbol. This denotes Fujitsu's broad vision, the focus on the bigger picture as well as the here and now.

The ICT systems of tomorrow need to be designed around human activity. All aspects of ICT infrastructure, applications, and their operation and maintenance should be optimised in this way. Sensors and intelligent 'knowbots' will monitor and anticipate. Computers will be wired to our bodies and – eventually – to our brains. The sheer processing capacity of tomorrow's computer will challenge the human race to re-evaluate its relationship to the machines it has created.

The role of ICT is to improve the lot of humankind. Through its technology, its products, its services and its strategies, Fujitsu is helping shape that future.

Fujitsu calls it the Human Centric Intelligent Society.



### Roll of Honour

#### Some of FANZ's Current Customers

The Fujitsu Australia New Zealand customer list in 2013 is a who's who of Australasian commercial and public sector organisations. Here's just some of the enterprises and government agencies using Fujitsu technology and services to run their day to day operations.







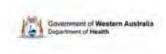










































Fujitsu and the Happi Coat tradition





THE COVER is of a Fujitsu Happi Coat (法被, 半被) a Japanese garment traditionally worn during celebrations and festivals. Fujitsu Australia New Zealand has adopted the tradition of hosting a traditional saké ceremony for the opening of new buildings and facilities. During the ceremony key Fujitsu executives and invited guests wear the Happi Coat during the traditional breaking of the saké barrel.

In recent years Fujitsu Australia New Zealand has extended the Happi Coat tradition by presenting a framed coat to customers to acknowledge significant contracts and projects. The Happi Coat is presented to the customer and a duplicate is made, which resides in the office the contract originated from. The sales person also receives a framed mini Happi Coat to acknowledge their contribution.









# FUJISU