

## ○ MEL WARD AO, 1941–2010

ONE OF THE GREAT LEADERS OF TWENTIETH-CENTURY  
TELECOMMUNICATIONS

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Mel Ward

Melvin Keith Ward was born in Mackay, Queensland on 12 December 1941. On 1 October 2010 he succumbed to cancer at his home in Jan Juc, on the coast of Victoria, surrounded by his wife Margaret, their three sons Geoff, Rick and Jonathan, and other members of his loving and close-knit family, including grandchildren.

When his parents moved to Brisbane, Mel undertook his secondary education at Brisbane Grammar School (1956–59), where he performed well academically and as a tennis and hockey player. His selection as a school prefect and promotion to Pilot Officer in the Air Force Cadets were early recognition of his leadership potential.

Mel's engineering career began early in 1960 with his winning a PMG Cadetship to study Electrical Engineering (telecommunications) at the University of Queensland.

Mel derived maximum benefit from university life. He enjoyed the camaraderie of intervarsity hockey games and an active social life (including the drinking nights for which engineering students were notorious); and he towered tall when driving his MG TC sports car. He made many friendships which lasted a lifetime. And most importantly, he met Margaret Lowe, whom he married on 19 December 1964 – a strong and rich relationship that continued undiminished throughout his life.

With an acute and enquiring mind, Mel was a brilliant student. He graduated Bachelor of Engineering with First Class Honours at the end of 1963 and was awarded the University Medal in Engineering for that year. He followed up a year later with a Master's degree in Engineering Science.

Soon after completing his Master's degree, Mel and Margaret moved to Melbourne in March 1965. Mel's professional engineering career began in the Postmaster-General (PMG)'s Research Laboratories (later Telecom Research Laboratories). There, in the Circuit Theory Group, he designed filters for transmission systems for a couple of years.

Mel moved to the Electronic Switching Division in 1967 and soon emerged as a key player in a major research project called the IST (Integrated Switching and Transmission) Project, very advanced for its time, which involved the investigation of two key ideas. The first was the concept of using software-controlled computers to perform the control functions (previously implemented by electromagnetic relays) in a telephone exchange, and the second was the idea of using digital solid-state devices to switch telephone traffic in a digital form. At the time, transmission systems carrying digital traffic were being introduced into the telephone network, but conversion of the traffic back to analogue form was necessary to perform the switching function in telephone exchanges. These two ideas underpinned the dawn of the era of computer-controlled digital telecommunications, an era which continues today although the early time division multiplexing technique of switching has by now, more than forty years later, been largely superseded by packet switching.

Mel's participation in the IST Project took him and Margaret to Bell Telephone in Antwerp for about six months, starting in June 1968, where he worked with the designers of the new, specialised computers needed to perform switching control functions at high speeds. He returned to Australia as the key designer, together with the late Fred Symons and the late Andy Domjan, of the functional specifications of the IST switch being developed in the Laboratories. This experimental switch, the first computer-controlled digital telephone exchange in the world to handle live traffic, was implemented and finally installed in the Windsor exchange building in Melbourne in 1974, where it carried telephone traffic for many years thereafter.

With his impressive engineering talents becoming increasingly obvious, Mel was promoted in 1970 as an Engineer Class 3 into the mainstream area of Headquarters Telephone Exchange Equipment to participate in the 10C Trunk Exchange Project. The 10C trunk system was a large computer controlled switch which the PMG purchased as a result of a world-wide tender to meet network needs for switching the increasing volumes of STD traffic. As it was still in the development phase within Bell Telephone in Antwerp, it was far from a field-proven system and not without risks.

To mitigate those risks, the PMG sent a team of engineering and IT specialists to Antwerp for around three years (from mid-1970) to liaise with the system designers on the interpretation of the PMG's specifications and networking requirements. Mel was an integral member of that team and, in fact, went a step further and programmed much of the software for the information signalling module within 10C. In the process, he earned both respect and friendship within the ranks of Bell Antwerp designers and their management. He returned from Antwerp in November 1973 to head up the new 10C Section within Telephone Exchange Equipment Branch, where he contributed to the acceptance testing of the 10C trunk exchange, leading to the first installation going into service in 1974 in the Pitt St exchange building in Sydney.

On 1 July 1975 the PMG Department was reorganised, with the nation's postal services and telecommunications services being delegated to two new government business enterprises: Australia Post and Telecom Australia respectively. Following the reorganisation, Mel became an Engineer Class 5 in Telecom Australia's new Switching Design Division, but was detached to head a task force on the CUDN (Common User Data Network) Project. CUDN was a new packet switched data network aimed at meeting the emerging data needs of large corporate clients – but was not without its problems. Under Mel's leadership the task force identified various potential applications for the CUDN hardware and software.

On his return to Switching Design, Mel's technical expertise was called upon in the final decision-making process which resulted in the selection, in 1977, of Ericsson's AXE 10 switching system for application as a local computer-controlled telephone exchange in the Australian network. He was promoted to head (Level 2) of Switching Design Branch and managed all of Headquarters design activities relating to the adaptation and integration of the AXE 10 system for deployment in the network. Within 15 years the AXE 10 system was to become the dominant local switch in the Australian national network, including Telstra's GSM mobile network in the 1990s.

In the late 1970s, Mel was again detached to undertake a special investigation into the future data needs of Telecom's customers and the emerging data switching technologies which would support them. This work had significant impacts on Telecom's organisational structures and resulted in the establishment of the Data Communications Branch. For the first time, this group combined commercial and engineering functions within a single product based organisation. Mel headed this group for about two years as a Level 3 Manager.

For the last time Mel returned to Engineering in 1981, for a relatively short period, as the Chief Development Engineer (Level 4). There, he continued to drive the digitalisation of Australia's telephony and data networks, and managed development activities on the emerging mobile telecommunications technologies.

Mel's career as an engineer in Telecom Australia was spectacular, but as he moved on from an essentially engineering role to more overarching management it became stellar.

In 1983, when Greg Crew moved from Telecom Australia to Hong Kong, Mel replaced him as head of the Commercial Services Division in Telecom. A year later in 1984, with the retirement of Gordon Martin, Mel became the Chief General Manager of Telecom Australia – effectively the organisation's Chief Operating Officer. Then in April 1986 Bill Pollock retired and no one was surprised when Mel took his place as Telecom's Managing Director. This spectacular rise was not bad for someone who started out in what even in the Research Labs was regarded as the boffins' area of Circuit Theory!

There were three major trends in telecommunications over this period:

- the move to digital networking,
- growth in mobile communications and
- competition in the provision of telecommunications services.

Mel's early work in digitising the network enabled the increasing penetration of voice and data services based on digital technologies.

On mobile services, he played mainly a supporting role, putting a good team in place and ensuring they had the resources to grow. As Managing Director he also made a cameo appearance in the mobiles field when in February 1987 from the steps of the Sydney Opera House he made the first call in Australia on what would now be recognised as a modern cellular mobile network.

It was as Chief General Manager and Managing Director that Mel moved into a central role in the third of the major themes for the industry – competition.

While he may have had some internal turmoil about competition in public network services, he took steps to prepare to Telecom for a competitive market place.

He called together the fifty or so most influential Telecom people – itself a novel move – to discuss the future of the organisation. This was in the early days of thinking about competition, in the early 1980s. The conclusion reached was that competition was inevitable and some estimates for dates and parameters were put around it – and these proved to be reasonably accurate.

Mel then went on, with a great deal of insight and not a little courage, to completely reorganise the organisation to prepare it for a competitive environment. This overturned almost 100 years of history and there were pockets of strong resistance. Telecom Australia became the first telecommunications carrier in the world to organise completely around customer sectors, rather than the traditional functional and geographic approach. The importance of this in getting Telecom ready for a competitive market cannot be overestimated.

Mel also recruited a small number of senior managers from North America who had experience in competitive markets. This too was crucially important in getting the organisation ready. He also negotiated with Telecom's union leaders to progressively reduce Telecom's total staff from a peak of 93,000 to some 69,000 by the time of his departure in 1991, through incentives for voluntary retirements – an amazing feat of industrial relations, for which the credit was claimed by one of his successors!

He was inevitably involved in the political debate that arose about competition throughout the 1980s. It was in this area that he had some notable run-ins with political forces in Canberra, which were intent on splitting Telecom into several less powerful pieces. The battle stories of these years are best told over a beer or a bottle of wine. However through all of the political skirmishes Mel continued to state his views based on the facts. He insisted on playing the ball and not the man. The end result was that he was able to convince first the Minister of Communications, Kim Beazley, and then the Federal Cabinet of the desirability, in the national interest, of merging Telecom Australia with OTC to face end-to-end competition both within Australia and internationally.

But Mel's campaign to resist the carve-up of Telecom incurred powerful enemies in the Federal bureaucracy as well as in Cabinet. In late 1991, in the lead up to the merger with OTC, Mel noted the warning signs and retired gracefully from Telecom. The meetings held with staff in several capital cities to farewell him were quite emotional affairs; he had been enormously popular as Telecom's leader, and his downward loyalty to staff was fully reciprocated.

After leaving Telecom Australia, Mel became a very active company director. His first directorship was a baptism of fire as Chairman (1992-94) of Brash Holdings, saving it from receivership by finding an overseas buyer. Other companies that he chaired included Logica Australia (1992-97), Sedgwick Holding (1994-99) and Pro Medicus – the latter from its float in 2000 until 2010 when ill health forced him to retire. He also served as a non-executive director on several major

companies, including AXA Asia Pacific Holdings (1995-2003), Coca Cola Amatil (1999-2008) and Transfield Services (2001-10).

He served as a company director with distinction and integrity. On the news of Mel's death, Anthony Shepherd, the Chairman of Transfield Services, said: 'His dedication to the Australian business community and to the arts has been immense. Mel was a true gentleman, a man of integrity, and will be greatly missed'.

Mel was very active in supporting the Arts in Australia. He was on the Board of the Australian Ballet from 1991 to 2002, serving as Chairman for the last three years. From 2002 to 2006 he chaired the Major Performing Arts Board of the Australia Council. As always, Mel threw himself fully into his work with these bodies, and introduced the concept of 'artistic dividend' to assist in their management.

Ian McCrae, the General Manager of the Australian Ballet during Mel's time on that Board, said of Mel: 'His influence at the Ballet was more than financial rectitude and good governance. As you all know he was a people person – and this defined him as much as anything else. He was genuinely interested and he cared. We would lose track of him as he wandered around the Ballet Centre chatting with everyone. I was always afraid that I might find him in a rehearsal studio decked out in tights'.

Mel's career in Telecom and his achievements in the business community and the arts were truly monumental. He was rightly recognised with a number of awards and positions including the Order of Australia (1993) for his contributions to telecommunications, Membership of the prestigious Swedish Royal Academy of Engineering Science, recognition by the International Telecommunications Union, and was made a Fellow variously of the Australian Academy of Technological Sciences and Engineering, the Institution of Engineers Australia, and of course the Telecommunication Society of Australia.

Many people from Telstra and the wider telecommunications industry who worked with Mel have commented glowingly on his work and life. Without exception the first thing they have all talked about was Mel the man, and they all mention the same things. It is a consistent and very powerful list.

The first word everyone mentions is integrity. This is closely followed by words such as 'warm', 'genuine', 'interested in you as a person', incisive, 'he played the ball not the man', 'no hidden agenda', and 'he always took a positive view of people (and was seldom disappointed)'.

He was also an extremely well-balanced individual, and was skilled in being able discern the important factors bearing on an issue – be it in a business, social or personal context – and to allocate priorities accordingly. Despite his onerous workload and responsibilities, Mel always afforded top priority to his family and was always there to participate in a rich and vigorous family life. Both he and Margaret can be justifiably proud of their three fine sons who are now successfully making their own way in the world.

A generation of Telecom managers and staff – and people in the wider industry as well – have benefited personally and professionally from working with and knowing Mel. Many believe that they are better people for having known him, worked with him and had him as a friend – a powerful and lasting legacy for this remarkable human being.

*Vale Mel Ward.*

*The Telecommunications Journal of Australia and the ACS Telecommunications Special Interest Group would like to express their great appreciation of the life and work of Mel Ward and to offer our condolences to the members of his family. This obituary has been prepared from material assembled by Bill Craig and Ray Liggett.*

Cite this article as: Liggett, Ray; Craig, Bill. 2010. 'Mel Ward AO, 1941–2010: One of the great leaders of twentieth-century telecommunications'. *Telecommunications Journal of Australia*. 54 (4): pp. 54.1 to 54.6. DOI: 10.2104/tja10054.