

# Case Study 1: Ballarat Base Hospital

**CLIPSAL**  
DATA COMMS

## Clipsal DataComms - the choice for the latest technology.

For many years, the Ballarat Base Hospital has serviced the needs of the 90 000 residents of Ballarat. What few people realise is that it is also a referral hospital for the entire Western Victorian region.

In recent years, demand for the hospital's excellent facilities has been steadily increasing. Two years ago management undertook a radical extension programme to the hospital's western wing with a view to building a totally state-of-the-art 4-storey complex, utilising fully integrated technologies to meet the needs of 40 000 patients per year. One key objective was to maximise the hospital's data capabilities, replacing manual collation of data with a fully computerised network system.

The ground floor of the West Block is situated at the end of the in-patient area. Here, emergency and the radiology units are located. On the 1st floor is the day procedure, endoscopic and critical care units. Ambulatory care and orthopaedics is located on the 3rd Floor while medical and chemotherapy areas are located on the 4th Floor.

Unlike the majority of hospitals in Australia, Ballarat's new West Block incorporates a comprehensive electronic clinical information system networking all four floors. Data is keyed in from terminals located throughout the West Block, even from bedside terminals. All reports are stored in a data depository and can be accessed online.



Terminating Clipsal 3100 Modules using Clipsal IDC Termination Tool designed to provide reliable connections.



The new West Block extension of the Ballarat Base Hospital.

Due to the massive data requirements and need for high speed transmission of information, WH Electrical was commissioned to install the vast tracts of data cable, cabinets, terminal plates and more.

Belden 1888ANH Cable was used throughout the West block of the Ballarat Base Hospital, as it minimises the effect on sensitive equipment from cable related interference. This high performance cable satisfies ISO/IEC 11081 and proposed Category 7 standards.

To link the many workstations throughout the West Block Belden's Media Twist cable was used, which gave the hospital proposed Category 6 performance. In Media Twist, Belden has created a unique cable design delivering the ultimate in UTP performance. Media Twist utilises a unique patented design and manufacturing process to produce a 4 pair cable with extremely uniform dimensions and internal physical spacing.

Unlike other enhanced cables, Media Twist delivers stable performance to 350 MHz with electrical characteristics exceeding TIA / EIA Category 5e standards by such a wide margin that Category 5e has become an obsolete benchmark.

Through its unique crescent shaped design, each pair is locked into place. This ensures that pair to pair movement is greatly minimised during the installation process. This provides stable cross talk and impedance performance before and after installation.

Throughout the new West Block Clipsal Fast Mech data jacks were installed for computers, phone lines and fax machines. These provide the performance required to meet the client's needs. Fast Mech is also

available in a shuttered version. These outlets were installed utilising the C2000 Classic Series switchplates, which are available with labelling windows in either horizontal or vertical alignment, so that circuits can be easily identified. The label clear window cover simply clips into the grid.

The Ballarat Base Hospital has many levels and departments, and to interconnect them all Belden's Internal / External Optical Fibre, Light Duty Riser Cable was used.

The use of Clipsal's Patch by Exception, the world's highest density / disconnect jumpered Block cabling solution gave the Ballarat Base Hospital a high performance, high density and easy to manage cabling solution. Colour coded for easy identification of services, the Patch by Exception solution features the flexibility of overriding jumpers with the simple use of a patch cord. This effectively provides the simplicity of an RJ solution without the need for patch management, eliminating messy wiring. Clipsal 3104 Series Patch by Exception modules guaranteed excellent high output transmission performance.



A WH Electrical technician terminating fibre optic cables.

'The Complete End to End Solution'

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