



Centrelink receives NGF from ADC KRONE

CASE STUDY

Centrelink is an Australian government agency, delivering a range of services to the community, and operating two main data centres in Canberra. The company concluded that maintenance of the current cabling infrastructure supporting each data centre posed an ongoing operational risk. To improve reliability and reduce operating expenses, Centrelink committed to upgrading the cabling system.

With the current cabling system, moves, adds, and changes were time consuming, disruptive, and expensive. Cabling under raised flooring was so poorly routed and managed that moving one cable often disturbed 100 cables. The only viable solution was to cut cables, drag them out, and reinstall new cable — work usually required bids from cabling contractors due to the unworkable tangle of copper and fibre cables under the floor. As a result, routine rearrangements or adding new servers was difficult and time consuming.

A focus of the project was to create a cabling system that improved reliability, reduced costs, and shortened intervals for moves, adds, and changes.



Technicians mount FL2000 fibre termination panels flush under the raised floor, providing interconnect access for adding, removing and rearranging servers.

Solution

The new cabling system for the Centrelink data centre pairs 10 high-density NGF (Next Generation Frame) fibre distribution frames with over 100 FL2000 fibre termination panels mounted in frames and under raised flooring, each FL2000 serving as an interconnect for servers in the data centre.

In the past, adding a new server required one to three weeks of work establishing long cable runs (through an unmanageable cabling system) to directly link equipment. Because the FL2000 panels and the NGFs were precabled to each other during installation, new servers are now brought on line in just hours by merely plugging into the data centre network through the FL2000s and moving or adding patch cords at the NGF to complete the circuit. The FL2000 interconnect point saves time and labour during moves, adds and changes. Centrelink chose the NGF and FL2000 fibre products to ensure greater reliability, protection, and ease of use in the data centre. Distribution frames were created by placing front facing NGFs back-to-back.

This novel application of ADC KRONE's popular fibre frame not only saved space but also provided added capabilities for fibre management. In this configuration, fibres could be routed between NGFs without routing through the channel normally set at the bottom of the frame. For example, fibres could be run from the third block of one NGF straight through to the third block of the facing NGF. This unique configuration not only protects fibres but also provides fibre routing that is cleaner and easier to perform.

In addition, Centrelink created a unique application for FL2000 by installing some fibre termination panels under raised flooring. Each under-floor FL2000, which connects by IFC cable to an NGF distribution frame, includes a special enclosure that reduces dust and offers easy access to pigtails.

With FL2000 panels placed both under the floor and in racks near server line-ups, adding hard drives is as easy as adding a patch cord. With the more efficient cabling scheme, equipment changes – which happen often – are effected without changing the infrastructure.

In reviewing vendors for the project, Centrelink management established critical factors to rank solutions from various vendors, as follows: cable management, termination density, mounting of frames, patch cord management, ease of use, and labeling effectiveness. In all categories, ADC KRONE equipment ranked either first or second. For example, the NGF solution exceeded termination density requirements by approximately 25%, allowing up to 3,974 terminations per square metre. Even with the exceptional density, it was apparent that the



High density NGF frame

NGF design still provided proper access to fibres for installation, patching, and maintenance. In addition to the innovative routing of cables between back-to-back front-facing NGFs, ADC KRONE's superior cable management features included slack management and easy access to terminations that enabled Centrelink to settle upon only four patch cord lengths. Taken together, ADC KRONE won the Centrelink business based upon how fibres are routed and managed.

Implementation

During implementation, ADC KRONE was able to provide off-the-shelf accessories and mounting components for successful mounting of under-floor FL2000s without delaying project completion. In addition, the implementation team was able to successfully work with limited access times in the data centre and still meet deadlines because ADC KRONE's preterminated fibres and logical assembly of frames reduced installation time. Simple features such as ADC KRONE's complete set of assembly hardware with each frame made installation move faster.

ADC KRONE's thorough training of both installation crews and Centrelink operations staff helped to create a smooth cutover and an easy transition for personnel responsible for day-to-day operation of the new data centre.

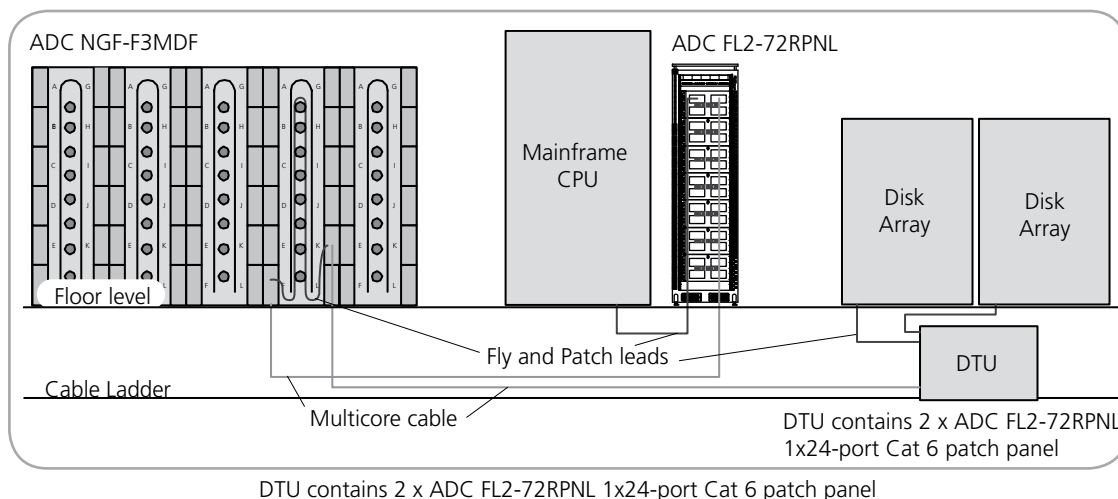
With the new cabling infrastructure in place, Centrelink reports that technicians have very

quickly adapted to new procedures for handling rearrangements in the data centre. Most important, certain data centre metrics have already proven the value of the project: fewer troubles, less downtime, reduced lead time for adding servers, reduced technician time for rearrangements.

Careful attention to the passive components such as the cabling infrastructure has enabled Centrelink to make significant productivity improvements within its data centre environment.



Next Generation Frames are positioned back-to-back to save space and allow easier and more secure routing of fibre between frames



CASE STUDY

CASE STUDY



KRONE



www.adckrone.com/au

AUSTRALIA 2 Hereford Street, Berkeley Vale NSW 2261
Mailing Address: PO Box 335, Wyong NSW 2259, Australia
Sales Support: 1800 801 298

www.adckrone.com/nz

NEW ZEALAND 2 Nevis Street, Petone, Wellington
Mailing Address: PO Box 38-177, Wellington Mail Centre 6008, New Zealand
Sales Support: 0800 657 663

ADC Telecommunications, Inc., P.O. Box 1101, Minneapolis, Minnesota USA 55440-1101
Specifications published here are current as of the date of publication of this document. Because we are continuously improving our products, ADC reserves the right to change specifications without prior notice. At any time, you may verify product specifications by contacting our headquarters office in Minneapolis. ADC Telecommunications, Inc. views its patent portfolio as an important corporate asset and vigorously enforces its patents. Products or features contained herein may be covered by one or more U.S. or foreign patents. An Equal Opportunity Employer

6372_AU 11/06 © 2006 ADC Telecommunications, Inc. All Rights Reserved