

PITT ST. CAPITAL CENTRE

SYDNEY, AUSTRALIA

CORPORATE

INCREASED CONTROL

Capital Centre, an office tower in Sydney, Australia, located within the Sydney Hilton Hotel, is an eight-floor tower with services independent of the hotel. Mechanical services and the ancillary plant and equipment serving the office towers were last refurbished in 2006; however, in the years following, there were issues with reliability and operating costs, which gradually escalated to undesirable and unsustainable levels. The system had also reached the end of its product support life.

PROJECT DETAILS

The solution implemented for this project is a fully native, BACnet[®] compliant building management system using Reliable Controls hardware and software. The mechanical elements of this project include three chillers, three cooling towers, eight AHUs, 280 VAVs, two boilers, and 12 pumps. The project's future viability was further ensured through the installation of an optic fibre backbone installed from the basement lead point of attachment, through to the plant room. High speed, CAT 6 cabling was reticulated to their respective controllers. New controllers were installed at each VAV throughout the building and networked to the new dedicated floor controllers.

A variety of strategies were implemented to optimize control and reduce energy, noise levels, and wear and tear. Stability was added and attention was given to improving operating conditions and reliability. Building performance improvements included the reduction in drafts in zone spaces, self-optimized airflow management, energy consumption reduction, increased comfort conditions, including temperature and stability. Chilled water plant control system improvements resulted in reduced variations in water temperature, the anticipation of load requirements, minimized operation of the bypass valve and unnecessary pump energy waste, and significantly improved chiller reliability.

To learn more about projects using Reliable Controls[®], visit www.reliablecontrols.com/projects/overview.



PROJECT TYPE:

Retrofit

TOTAL AREA:

15,429 m² (166,078 ft²)

EQUIPMENT INSTALLED:

1 MACH-ProWebCom™
17 MACH-ProCom™
8 MACH-Pro2™
268 MACH-ProAir™
8 MACH-ProZone™
RC-Archive[®]

MEASURABLE IMPROVEMENTS:

Energy Savings: \$54,024/yr
Service Call Reduction Savings: \$62,500/yr
Total Operating Cost Reduction: \$116,524/yr
Return on Investment: 4 years
Energy Consumption Reduction: 67%

RELIABLE CONTROLS[®] DEALER:

Environmental Automation

