



Brent Cross Shopping Centre, London

Customer issue - Regular testing of the existing control system for smoke control revealed that the system had become unreliable and needed to be replaced, to ensure the safety of shoppers and staff working in the retail centre. It is a legal requirement for the shopping centre management company to test the system and record test failures, placing a natural requirement to rectify the fault quickly.

To increase safety for its 16 million visitors per year and to reduce its own repair overheads, the centre's management team sought a lasting solution to the maintenance challenges implicit in a busy shopping centre.

A cost effective solution was required to improve reliability of the system and if possible use the existing wiring infrastructure however, the routing and the topology of the existing cable was unknown as there were no schematic drawings available. This meant that traditional RS485 technology may not prove reliable.

Solution - The Dupline 2 wire Fieldbus solution was chosen because it has a long history of transmitting signals in less than ideal conditions.

Dupline's® forgiving nature to cable type, free topology and distance capability allowed New Century Systems to take advantage of the existing wiring at Brent Cross, linking the fireman's override panels to the central PLC. The wide

range of PLC interfaces available as part of the Dupline® range also simplified integration of the multiplexed switches with the existing control system and reduced the wiring complexity inside the override cabinets themselves, Dupline® provided the New Century Systems team with the tools necessary to dramatically reduce fire-alarm failures and improve the overall stability and reliability of the system.

The increased freedom allows the centre's management team to direct more resource towards realising Brent Cross' overriding goals to enhance facilities and continuously improve services and attractions for customers, and also delivers numerous benefits to investors, retailers and shoppers.

Achieved benefits:

- Simple 2 wire system that reduced installation cost
- Existing cable could be used – reducing installation cost
- Higher level of reliability
- Easier to maintain – based on modular system
- Full control from one central location
- Reduced energy consumption by using time scheduling
- Future expansion possible due to bus concept