

## Case Study

### Access to High Speed Data Enhances Service Delivery



#### The challenge

A new four storey office that had been built by the client at Parc-Y-Llyn, Aberystwyth needed to be fitted out with a pre-terminated Connectix Cat 6 UTP/LSOH solution. This high speed cabling infrastructure would provide staff with broadband-based internet and intranet access as well as a wide range of technologies such as video and web conferencing.

#### The solution

Whitepack Network Services were selected for this project by Fujitsu Technology Solutions to install the complete Connectix solution because it had already successfully completed a number of installations throughout Wales.

The first phase of the project included a series of pre-contract meetings to determine the strategy for the whole project including co-ordinating all the different contractors. This was attended by one of Whitepack's experienced project managers who had been assigned to this important project to lead a team of three specialist engineers and ensure that the whole contract was completed on time and within budget.

The project was installed in four separate phases corresponding to the number of floors in the building. The Connectix cables, communications cabinets and ancillary equipment were delivered separately for each of these phases. To meet health and safety requirements, four 42U cabinets for the ground floor communications room and twenty-four 39U cabinets would be delivered to the server room 'as built'

whilst the 42U cabinets for the upper floors were delivered to the site as flatpack units – four to each floor. The main contractor was responsible for moving the cables and cabinet components to the upper floors using a large fork lift.

Despite this planning, the start of the project was delayed because of excessive rain fall that that caused flooding problems on site. In addition, when the installation team arrived on site in early January, the temperature was below four degrees centigrade. To avoid invalidating the Connectix warranty conditions, the cables could not be installed until the temperature met their installation standards. This was achieved after sealing off the upper floors and arranging for the main contractor to install blow heaters.

Prior to the start of each phase, floor boxes were installed in the raised floor by the electricians. To facilitate this, the Whitepack team marked out the floor tiles that needed to be removed from the raised floors by the main contractor and installed 1,500 metres of cable matting in accordance with the drawings throughout the floor areas. As soon as the cabinet components had been moved to the upper floors, they were assembled in each communications and server room and bayed together. The pre-terminated cables were then installed from the communication cabinets to the respective floor boxes.

To handle the clients data requirements, over 3,000 Cat 6 outlets and more than 200,000 metres of Cat 6 copper cable were installed as backbone links to communication cabinets and server harness links throughout the building. Wireless Access Points were also installed on the ground floor. In addition, 29 No 12 core optical fibre MTP ultra small form factor cables were installed, the 12 core fibres were connected as pre-terminated 8 cores in line with the customer specifications and fitted with LC Duplex connectors. With a total length of 2,000 metres, these were installed on primary and secondary routes from the server cabinet on the ground floor to communication cabinets on each floor as well as to link between the cabinets in the ground floor server room.

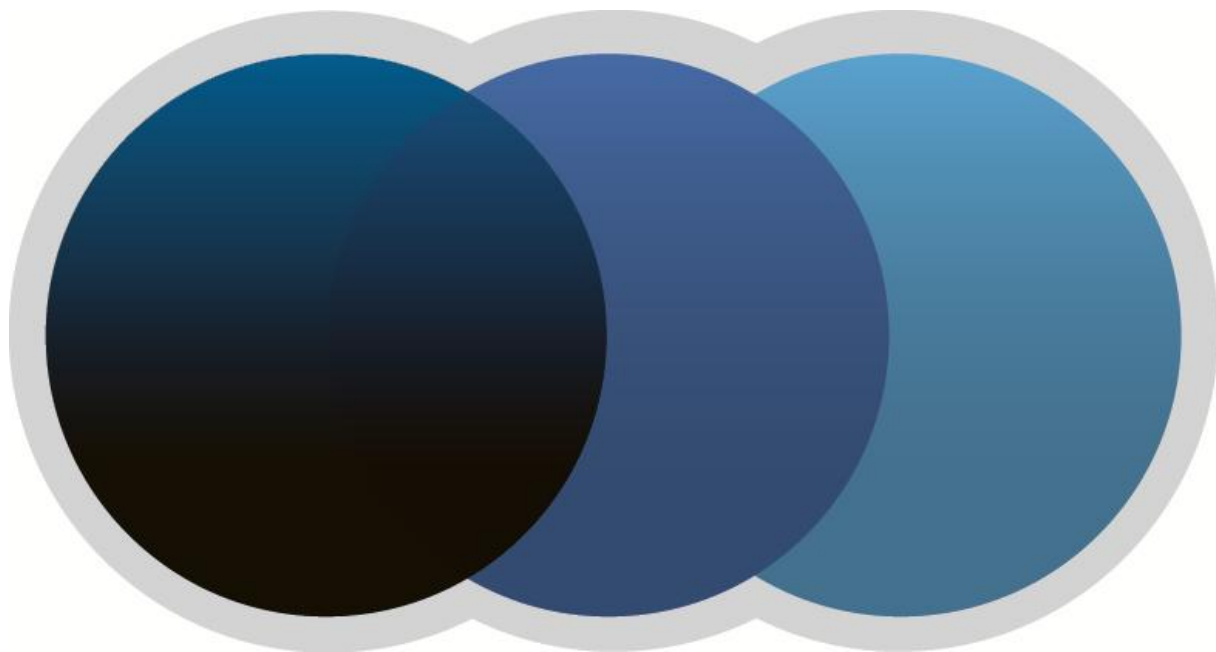


To deliver voice services throughout the building, 8 No 100 pair 1308 + earth voice multicore cable and 1 No 50 pair 1308+ earth with a combined length of over 2,000 metres were installed from the server room cabinet located on the ground floor to the communications cabinets on each floor. Whitepack Network Services also extended both voice and data links out to the building's external security lodge.

Throughout the project, Whitepack Network Services attended various health & safety and progress meetings where progress was carefully monitored to ensure adherence to the main contractor's programme. Although there were occasional requirements to work over weekends, most of the project was completed during normal working hours between January and June.

On completion, the test results, a 25 year Connectix Warranty and a complete set of fitted drawings were presented to the Welsh Assembly's IT department.

The project was a complete success and the Whitepack Network Services project management and installation team was commended by both Carillion and Siemens Business Services for their outstanding contribution to this important project.



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