



Test & Computer Services Ltd

# Validation of Data Centre Connectivity for UK TV Broadcaster

## Case Study

### Challenge

The customer used two data centres for its main operations that were in two separate buildings but were only metres apart in the centre of London. For disaster recovery best practices they decided to move one of the data centres to a location that was many miles away from London. They decided to use DWDM equipment for their connectivity from a relatively unknown overseas supplier that consisted of multiple 16G Fibre Channel and 10G Ethernet links. They needed to test these links to confirm that they were capable of running at maximum bandwidth without error before they migrated their data across to the new location.

### Solution

GCH placed load generation equipment at each end of the new links that was capable of full bandwidth data generation for both protocols and speeds. The equipment was connected at each end as if it was the customer's servers in order to test the full link and include the protocol switches. The links between the data centres were tested with a combination of different loads as well as worst case jitter test patterns to stress test the links. The links were also tested at full bandwidth simultaneously. The tests were carried out over a period of two weeks with various loads.

### Outcome

Testing revealed most links to be functioning correctly, however, some links were decreasing in capacity over time. Analysis of the faulty connections showed that the decreasing bandwidth was caused by re-sent data due to errors on the links. A physical examination of the fibres found that some of the connections were contaminated so these were cleaned and re-tested. All the workloads then functioned perfectly and the customer was able to seamlessly migrate on schedule and with complete confidence to the new DR facility with zero link errors.

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24 Years of Experience