

*“In one data centre alone, Fujitsu’s cabling allows us to generate £2.7 million a year of additional revenue from the same space.”*

Steve Smith - Regional Manager, BT



### Customer's Challenge

British Telecom (BT) is one of the world's leading providers of communications solutions and services operating in 170 countries. It is also a key player in the global networked IT services market with a strong track record of winning and delivering big, complex contracts for large corporations and other organisations. To deliver its IT network services and also support its own IT requirements, BT operates 18 data centres in the UK. However, as part of the deregulation of the UK telecommunications industry, BT's Openreach project was designed to separate its core business systems from those of its customers, so that other telecommunications service providers could have access to the local BT network.

*“There was a fixed deadline by which the Openreach project had to be delivered, so we quickly needed to find a way to re-configure how our servers were networked in BT's International Data Centre (IDC) in Cardiff,”* says Steve Smith, Regional Manager, BT. *“However, we also wanted to improve the overall speed and flexibility with which we could respond to our customers' needs. So, we had to find and implement a cost-effective, but extremely versatile solution, in a very short timescale.”*

### Fujitsu Solution

After evaluating solutions proposed by its two incumbent network suppliers, BT chose to implement Fujitsu's multi-mode fibre-optic cabling solution. As well as offering extremely fast, 10 Gigabit data transfer speeds, the system also eliminates the cost, complexity and rigidity of point-to-point cabling by routing all server connections through patching frames. As a result, servers or storage can be very quickly added, moved or upgraded without disturbing the existing equipment simply by connecting them to the nearest patching frame.

Steve Smith comments, *“We used to have between 3-12 connections per server, and you can have up to 10 servers in a rack, so if you have point-to-point cabling there is absolutely no flexibility. By contrast, the flexibility and quality of Fujitsu's multi-mode fibre-optic solution is superb, and we could have what we wanted, when we wanted it.”*

The same solution is also being implemented by BT's data centre in Derby as Tim Taylor, Operations Manager, BT, explains, *“Our need for diverse routing came about as part of the service BT provides to the NHS, but we also saw the advantage that deploying this unique patching framework would give ourselves and our other customers. So, with Fujitsu's help, we designed a new infrastructure that would capitalise on our existing cabling without having to lay miles and miles of new cables.”*

As old servers are phased-out the systems will gradually be moved onto the new network infrastructure. *“Our five halls in Derby are very, very full”* continues Tim Taylor, *“so we're aiming to free-up half of that space by moving system onto the new network infrastructure. Eventually, we expect to migrate some 1,600 servers.”*

### SUMMARY OF KEY FACTS

#### Organisation

British Telecom (BT)

#### Service/s delivered

A 10 Gigabit multi-mode fibre-optic cabling solution

#### Key Metrics

18 data centres

#### Benefits

- **Greater agility** - 'plug and go' approach saves 80% of the time taken to install a new server
- **Cost savings** - Fujitsu's cabling cabinets have a third of the footprint of conventional ones, saving 75% of the project costs
- **Additional revenue** - revenue is generated sooner and saving space create £2.7 million a year from just one data centre
- **Greater efficiency** - eliminates most cabling in under-floor conduits, improving air circulation and climate control and reducing power consumption
- **Greater resilience** - diverse routing reduces the risk of a connection failure and provides greater security
- **Enhanced customer service** - data transfer speeds are faster and its easier to keep systems running optimally
- **Future proofing** - the fibre-optic cabling is warranted for 25 years, giving a long-term return on investment.

## CASE STUDY BRITISH TELECOM (BT)



In Cardiff the implementation of the new multi-mode network infrastructure went extremely well. *“It was very quick and very smooth,”* says Steve Smith. *“Out of a 200 rack deployment we never missed a delivery date, which was vital as we were working to a regulatory deadline, with a potential £10 million penalty clause if we were late.”*

*“We’ve also not had a single failure on any connection, which is quite remarkable compared to other suppliers and solutions,”* adds Paul Woodward, Operations Managers, BT.

A new hall is now being designed for the IDC in Cardiff. By using Fujitsu’s multi-mode network solution only a minimal amount of under-floor cabling will have to be installed, as all bespoke cabling can be carried in overhead trunks and connected to the relevant servers using the new patching frames, making it much simpler to install and maintain.

Paul Woodward says, *“The fact that we can flood wire the new hall at the start and then never touch it again will deliver enormous savings in the long-run. Fujitsu also incorporated other innovative new products, like a high density frame for copper cabling that enables two cabinets worth of patching panels to fit into one without compromising their integrity. It’s the first time it has been used in Europe, so it shows the enormous benefit we get from Fujitsu’s knowledge of the market and willingness to keep a watchful eye in order to give us the best possible solutions.”*

Fujitsu is now working with BT to deploy the multimode fibre-optic solutions across the rest of BT’s data centres. Steve Smith continues, *“BT is looking to create a more mobile and agile workforce. For that to be effective we need standardisation across our data centres. Fujitsu’s solution offers a modular approach to an agreed standard and we see that as critical to achieving greater efficiency.”*

### Benefits To Our Customer

The new multi-mode network solution is providing BT with considerable cost and efficiency benefits:

- **Greater agility** - the system’s ‘plug and go’ approach saves 80% of the time taken to install a new server, so re-cabling a data centre can be completed in five days, compared to five weeks by conventional methods
- **Cost savings** - Fujitsu’s cabling cabinets have a third of the footprint of conventional ones. As each cabinet costs £100,000 in floor space the use of central patching has enabled BT to save 75% of the total project costs
- **Additional revenue** - new customers and services can be accommodated much faster, so revenue is generated sooner. Space saving has created extra revenue for BT of £2.7 million a year from just one of its data centres
- **Greater efficiency** - eliminates most of the cabling in under-floor conduits, improving air circulation and climate control and reducing power consumption
- **Greater resilience** - diverse routing reduces the risk of a connection failure and provides greater security as there is no single point of failure
- **Enhanced customer service** - data transfer speeds are significantly faster and systems are running optimally. Network configuration is fully traceable and cables easier to access, simplifying capacity and configuration management and making maintenance and problem resolution faster
- **Better asset management** - standardising network connectivity allows assets to be tracked more easily
- **Future proofing** - the fibre-optic cabling is warranted for 25 years, giving a long-term return on investment.

Tim Taylor says, *“The service we offer our customers has to be the best we can possibly deliver. So in a world of ever decreasing timescales the fact that we can respond very, very quickly to the needs of our customers by adding or re-configuring servers is a huge benefit for everyone.”*

*“As demand becomes greater and competition fiercer, data hosting services must become more agile. Our ideal is what we call ‘wheel-in, wheel-out’ - a way to almost virtualise our centres by adding or removing server or storage racks in moments, with no disruption to existing equipment. Fujitsu’s modular cabling approach allows us to reach this ideal,”* explains Steve Smith. *“We can also get more servers into each centre, saving a fortune in real estate. In one data centre alone, Fujitsu’s cabling allows us to generate £2.7 million a year of additional revenue from the same space.”*

### Our Approach

Fujitsu’s multi-mode fibre-optic cabling solution can be quickly and easily implemented in either existing or green-field sites. Its modular approach also means that it is extremely flexible and scaleable as there is no limit to the number of new modules that can be added.

Steve Smith comments, *“Fujitsu was in Cardiff within five days and, thanks to its knowledge and experience, it was able to complete the project in just four weeks, which is about half the time it would have taken us. While Fujitsu offers a standardised solution, it is not a commodity. If you need a variation, Fujitsu can not only provide that, but also plan and manage its implementation, because it has the technical knowledge and experience and understand our needs. It’s a real service differential.”*

*“Fujitsu provided a fully warranted and guaranteed service from start to finish,”* says Tim Taylor, *“The fibre-optic cable also has a 25 year warranty, so you have a completely dependable infrastructure from the moment it is put in to the end of its lifetime.”*

Using Fujitsu has other advantages as Paul Woodward explains, *“BT is the second largest IT supplier in Europe and we have the BT brand to protect. People come to BT because they trust the name. But we can offload work to Fujitsu and know it’s going to get done to the standard we set, which allows our own people to focus on value-adding activities.”*

### Our Expertise

With over 30 years experience of supporting the needs of customers, Fujitsu has a proven track record in providing complex systems integration and management services that reduce costs, improve productivity and customer services and deliver a compelling return on investment.

*“We like working with Fujitsu,”* says Steve Smith. *“Its people are flexible and take ownership of problems and situations. If they can’t do something, they’ll tell you up front, no bull, no waffle. As a result, the relationship has grown rapidly into a partnership; we are now working together to develop standardised network solutions for BT’s other data centres.”*

Tim Taylor agrees, *“We’ve known Fujitsu’s people for a long time and we value their knowledge and understanding of our systems very highly. Whatever we ask Fujitsu to do it always responds quickly and professionally and provides us with very workable and practical ideas and solutions.”*

### ASK FUJITSU

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