Case Study Payphone Repair and Refurbishment

The Fujitsu Repair Centre

»Having provided a leading-edge repair service to BT for over 15 years, our long-standing relationship and proven success in payphone repair, has resulted in Fujitsu manufacturing the BT Payphone Handset 28A.« Fearghal Cahalane, Head of the Fujitsu Repair Centre



The Customer

BT is a global communications services company, serving the needs of customers in more than 170 countries, with a revenue of ± 20.1 bn and employing 92,600 worldwide

The Challenge

A repair and handset manufacture service to BT that meets UK requirements

The Solution

A robust technical repair model and low-cost manufacturing solution from a single source

The Benefit

- Detailed fault database reports to improve product reliability
- Improved product lifecycle
- Reliable out of warranty repairs

The Customer

BT is the UK's premier phone company with over 63,000 public payphones in operation throughout the UK. In 1995 Fujitsu were awarded a contract to undertake repair of the CT payphone.

Fujitsu's success with this contract has resulted in a number of other repair agreements with BT over the last 15 years. These include SM1 coin runway and coin management module repair, and most recently Handset 28A manufacture.

Coin Mechanisms

The coin runway and management module, located inside each payphone, manages coins from entrance through to coin box, giving change and detecting faulty/counterfeit coins. It operates through a series of sensors, shoots and guides. Fujitsu held a contract with BT to carry out cleaning, replacement of sensors and testing through specifically developed payphone system reference models.

To ensure maximum protection during transit, Fujitsu designed bespoke packaging solutions. This required the installation of additional cardboard inserts to secure moving parts. Once packaged, the units were returned to BT.

Repair and Manufacturing Process

When undertaking the coin runway and management module repair, Fujitsu received faulty units previously employed in the field directly from BT. Units were routed to the Fujitsu Repair Centre by BT transport. Each unit was disassembled and cleaned thoroughly then diagnosed for faults, giving an indication of what fix was required. A repair was then carried out and the units soak tested using payphone system reference models. All parts were replaced as and when required using Original Equipment Manufacturers (OEMs) components.

Handset 28A

The successful implementation of the coin mechanisms contract resulted in Fujitsu being awarded a contract to manufacture and supply Handset 28A units to BT. The Handset 28A is a ruggedised plastic handset containing a digital receiver, magnet, microphone and communication cabling. The units are manufactured and tested to BT's requirements within the Fujitsu Repair Centre.

Specifically for this current contract, Fujitsu source armoured tubing, plastic housings, magnets, microphones and receiver units to produce a completed product. All connectors are completed on the unit to allow plug and play to all payphone consoles.

Each unit is tested to the BT specification using payphone reference models. On completion of the manufacturing process, units are packed and shipped to BT. Fujitsu utilise faulty returns to salvage parts for re-use in the manufacturing process. This allows Fujitsu to offer competitive pricing and reduce disposal to landfill.

Additional Services

As part of the current contracts with BT, Fujitsu produce monthly reports detailing faults, warranty information and performance. Fujitsu also maintain regular liaison with BT. Short term deliveries are organised through TNT to improve delivery times and meet quantity requirements from BT.

Fujitsu capture and maintain a database of repeat fault information to assist BT's supply chain. Where there may be component shortages, Fujitsu establish forecasts to smaller consumable suppliers to ensure delivery within Service Level Agreements (SLAs). In addition, Fujitsu also manage performance through the peak demand periods, for example from October through to March where up to a 50% increase is experienced due to longer nights and seasonal activities such as Bonfire night leading to increased vandalism.

The Benefit

Through monthly meetings, Fujitsu report operational requirements and issues, whilst BT comment on performance. Such regular customer contact means there are no surprises to either party and that closer collaboration leads to greater transparency, which is to the mutual benefit of both companies.

The aim of Fujitsu's repair service is to provide a cost effective and performance enhancing service. Fujitsu's specifically designed system reference and testing models are set-up to ensure that all repairs are fully checked in normal operation prior to dispatch. This includes checking circuitry and board level components utilising specialist electronic equipment.

Conclusion

The outcome is an efficient repair service that extends the life of the payphone product.

About Fujitsu

Fujitsu within the United Kingdom and Ireland provides ICT services to a large number of corporate, government and enterprise businesses, with annual revenues of over £1.5 billion. As a telecommunications specialist, Fujitsu Telecommunications Europe Limited provides expertise in the provision of integrated, end-to-end, next generation network solutions from initial design, development and manufacture through to, implementation, support, operation, maintenance and ongoing network management. In addition, the Fujitsu Repair Centre supports the refurbishment, renovation and repair of an array of telecommunications, retail and IT equipment.

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