



## Project Property

# London Bus Services Limited (LBSL) Turnkey ITCS solution for London Bus Services Limited

**“The major iBus project by LBSL entails data and voice connections for the world’s largest ITCS solution. Implementation of the project would not have been possible without the know-how, support and commitment of our main partner Trapeze.”**

*Paul Fitzpatrick, Technical Services Group, Transport for London*

London Bus Services Limited operates the world’s largest public ITCS system. This intermodal transport control system shows the dispatcher at a glance exactly what’s happening on the entire network encompassing more than 770 routes. The current location of any bus can be examined at any time using various information screens. This permits efficient dispatch of the vehicles and transports over six million passengers quickly and safely to their destination every day. The iBus project with its data and voice connections makes bus operations more reliable and provides precise information at the bus stops. The new ITCS system has enhanced the efficiency of operations and brought about additional savings.

### The functionalities

- \_ Intermodal transport control system type LIO
- \_ Analogue voice radio system, GPRS data radio
- \_ On-board computer, integrated 4 port network switch
- \_ GPS positioning
- \_ „Enhanced Navigation“ GPS location function with additional sensors for greater accuracy (gyro, odometer, map matching)
- \_ Integrated with London’s data supply via LIO-Data
- \_ Software up- and downloading to and from the vehicles
- \_ Data coupling CAESAR to LIO-Data
- \_ Recording of all trips and events for corresponding payment to the bus operators
- \_ Extended reporting system with several 100 reports
- \_ 10-year maintenance agreement (24/7 service)

### The system at a glance

#### **Control centre**

- \_ Hosted operating control centre for emergencies and escalation, 89 control centres for bus operators, 1 main control centre with 23 workstations for emergencies/police, 220 dispatcher workstations

#### **Radio system**

- \_ Analogue radio system with 80 channels

#### **Vehicles**

- \_ More than 8,800 busses

#### **Dynamic passenger information**

- \_ Self-learning prediction system for calculating bus arrival times at the bus stops

#### **Depots**

- \_ Altogether 89 depots

#### **Third-party components**

- \_ Siemens traffic light preemption system, TAIT MPT1327 voice radio system

#### **Software interfaces**

- \_ Real-time interface to a display management system with 4,000 displays as well as web and mobile systems

#### **Support and Operations**

- \_ Trapeze are providing 24/7 monitoring and response services for servers, network, on-board equipment etc.

### London Bus Services Limited (LBSL)

Transport for London (TfL) places orders with 15 transport service providers. LBSL is responsible for the entire ITCS system and its operation and monitoring.