SIMOCO CONNECTED BUS

INCREASING OPERATIONAL EFFICIENCIES AND ENHANCING PASSENGER EXPERIENCE

simoco
wireless solutions

The Connected Bus

Introduction

Buses have long been one of the most frequently used forms of public transport. Billions of bus trips are made globally and in the UK for example, out of 95 public transport trips, 48 of those trips were buses*.

However, as cities grow, traffic congestion increases, imposing huge costs on local and global economies impacting the environment and quality of life for citizens. Attempts to reduce carbon emissions have been tried by cutting consumption of greenhouse gas producing fuels but have largely been unsuccessful and viewed by many as counterproductive to economic growth. Such measures are difficult to implement and impossible to enforce. Introducing a new approach to the problem is critical given the urgency posed by rapid climate change.

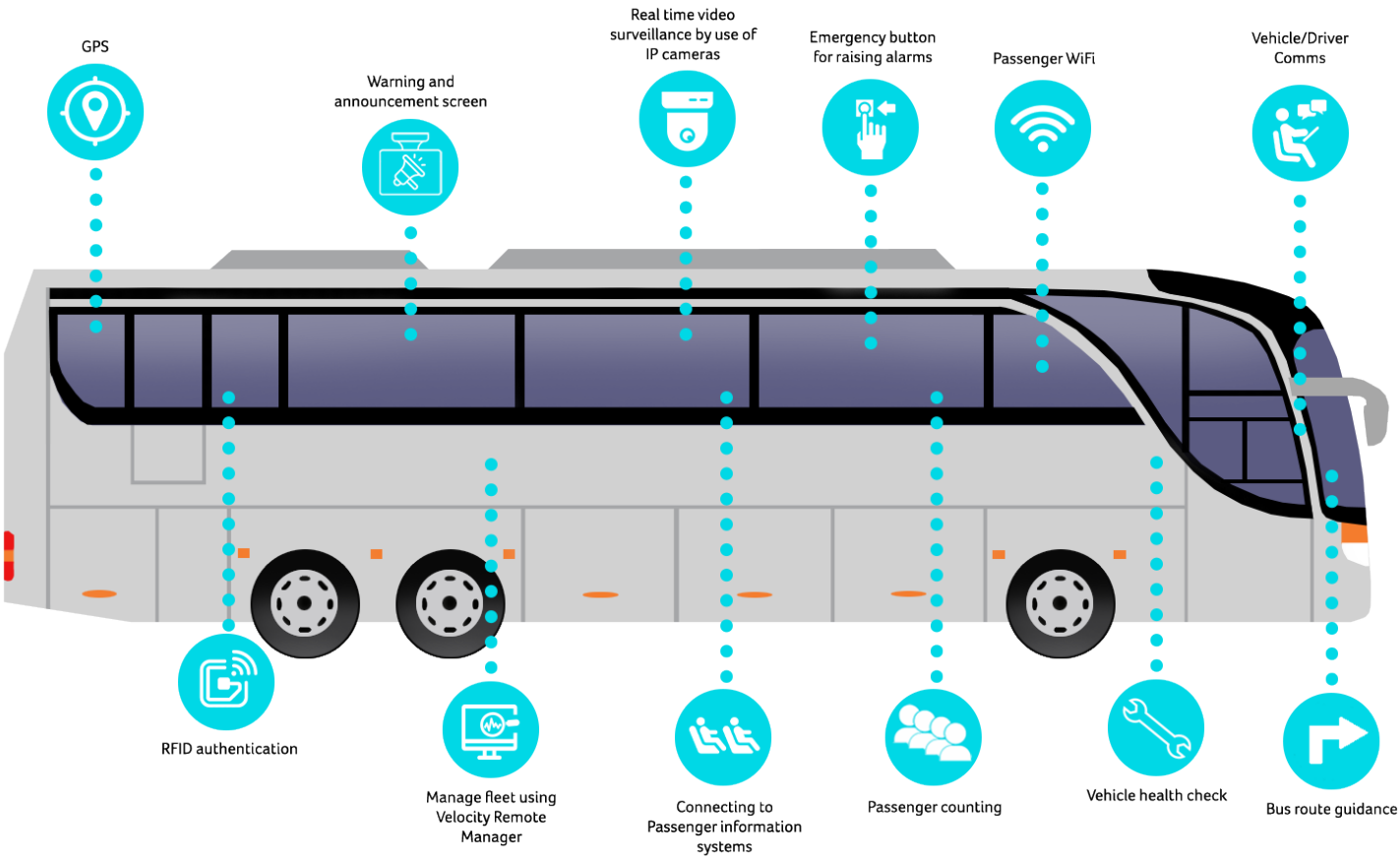
The Connected Bus offers a new approach by addressing these issues and provides a new way of allowing people and goods to move freely and safely while preserving the environment and ensuring economic vitality and quality of life.

*Source: Department of Transport UK 2019

Overview of Connected Bus Technology

Smart communication systems in buses have the ability to enhance customer experience by using Passenger Wi-Fi which thereby attracts more customers. Connecting to real time passenger information systems provides passengers real time information prominently displayed and accessible on the bus such as information on transfers allowing passengers to reach their destinations with certainty. Vehicle telemetry and telematics provides the necessary diagnostic information such as monitoring fuel consumption, braking harshness, tyre pressures and more which streamlines the transportation management operations and delivers capabilities and services that address the reduction of carbon emissions and operational costs as well as extending the life of vehicles and improving driver and customer safety.

An effective smart connected bus solution accomplishes more than just an on-board communications system, it integrates previously unconnected systems which help reduce OPEX costs, provides increased operational health and safety as well as increasing operational efficiencies.



velocity

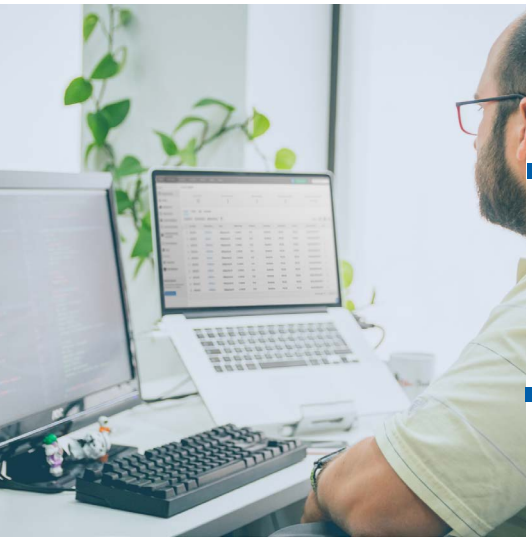
A Unique Solution
For The Bus Industry

The connected bus era will revolutionise how bus journeys are made and provide passengers the best possible customer experience. Your organisation requires revolutionary communication systems which not only provide all the operational benefits but also provides the best engaged customer experience for your passengers. At Simoco we can help you on this journey.

Wireless solutions built to drive efficiency

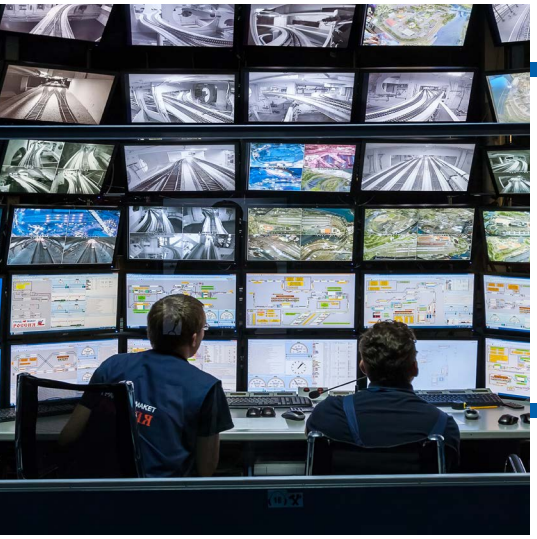
All in one intelligent communication solution
Our solutions provide an affordable and best in class intelligent communications which consolidate all your devices and peripherals providing your organisation the reliability and resilience it needs from a mission critical communication network. .

Wi-Fi for passengers
Today's transit commuters and leisure travellers want Internet access almost as much as they want a seat and an on-time arrival. Offering Wi-Fi is simply part and parcel of creating a good passenger experience.

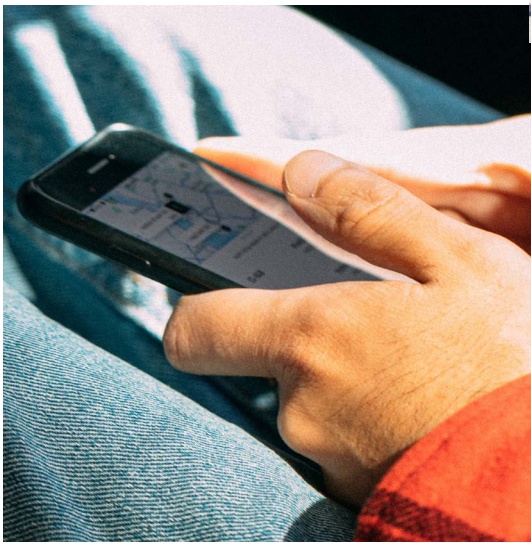


Real time video surveillance streaming
Our solutions rely on constant mobile connectivity which makes possible to monitor security from a remote location and alert authorities immediately when problems arise.

Centrally manage your fleet
Minimise one-off vehicle troubleshooting by monitoring, managing, and analysing connectivity and security issues from anywhere.



Complete fleet management for control room operations
Your organisation can use our software with integrated geofencing to track vehicle routes and driver behaviour on the road. The intelligence in our devices allows fleets managers to monitor route efficiency, look for redundancies or wasted time, and reconfigure routes for maximum effectiveness.



Announcements and signage
Digital signage, announcement boards and configuring announcements that work off announcement speakers can be configured providing passengers information to journey times, connections and transfers enabling passengers to reach their destinations quickly and safely.

Real time monitoring, maintenance and updates
Using Velocity Remote Manager allows firmware updates, configurations and maintenance to your wireless on board device from a remote location while ensuring that sensitive data stays safe.

RFID authentication
Your drivers can authenticate using an RFID tag each time a shift has started helping fleet managers keep a record of hours worked thereby addressing health and safety and wellbeing of your drivers.

Bus route guidance
The addition of bus route guidance can provide drivers features such as turn by turn instructions as well as informing the depo if a bus is early or late. This can be relayed to digital bus stops and transport applications in real time for users to see where a bus is on route and whether it is on time.

Network Security
Velocity is designed with security in mind and includes the use of advanced security protocols such as virtual private networks (VPN). Other security features include setting up Demilitarized Zones (DMZ), MAC filtering, IP filtering, port filtering and port forwarding provide a standards-based security solution for connecting and managing remote assets, enabling customers to guard against malicious access to sensitive data.

Passenger counting
Interested in knowing how many passengers are in your vehicle at a given time? Our solutions can easily do that allowing the dynamic dispatch of buses and removal of vehicles where inefficiencies exist. Furthermore, our dispatchers can display visual occupancy enabling the dispatcher to increase or decrease a particular route's bus frequency.

Vehicle health check
The sheer amount of journeys buses make on a regular basis can lead to a greater risk of vehicles breaking down and inconveniencing customers. Intelligence in our solutions allows for these checks by observing key indicators such as if a service light or oil light is illuminated. Readings are can be directly reported to a dispatch console informing fleet managers that the vehicle requires maintenance or the vehicle has been scheduled for servicing. Furthermore, vehicle speed monitoring ensures that drivers are driving in a responsible manner.

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