



## CCTV systems for articulated buses

### Highlights

- Fleet of 333 vehicles, of which 143 were articulated vehicles
- 21<sup>st</sup> Century supplied and installed CCTV, including door and reverse camera safety systems
- Provided an on-board communications platform conforming to all EBSF specifications

### Customer requirements

**Keolis Sweden requested a new camera and safety system for its fleet of 333 new and refurbished buses.**

The task, which presented a number number of challenges, was made more complex by the inclusion of 143 articulated vehicles amongst the already varied fleet. To meet the PTAs requirements, all equipment had to be conformed to EBSF specifications, that dictates that all bus systems should work across a common Ethernet-based platform.

### Solution and technology

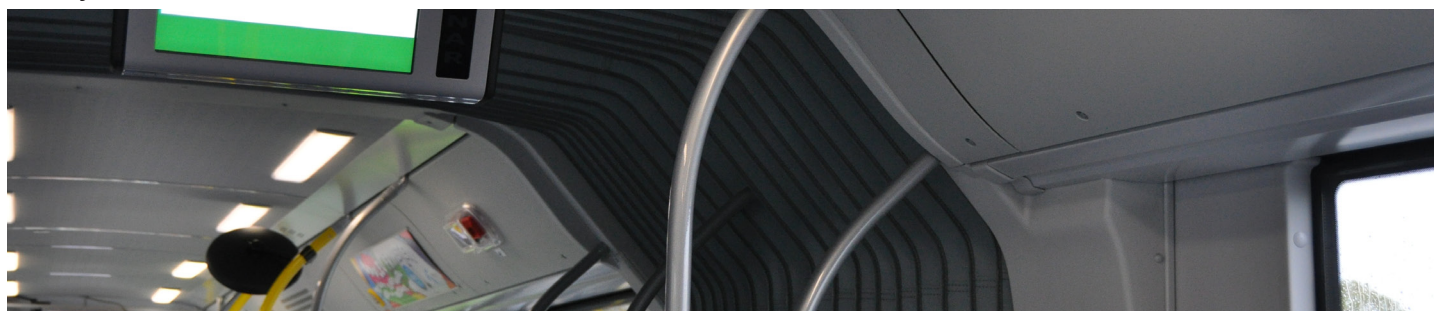
21<sup>st</sup> Century, entering its fourth year as a preferred supplier for Keolis in Sweden, delivered a CCTV system including a reverse camera on the rear section of the articulated vehicles, two further cameras on the door section both inside and outside the vehicle, a cab-mounted split-screen display and intelligent switching between the systems.

The new CCTV system was integrated onto the vehicles' Pilotfish network, ensuring that all vehicles met the PTAs requirements and EBSF specifications.

The in-house Swedish engineering and project team worked seamlessly together with Keolis and the bus manufacturers on this eight month project.

Careful planning by 21<sup>st</sup> Century's team allowed for installations taking place on all bus types as they became available to ensure each one entered service with a fully operating system.

The 21st Century engineering team continue to support the fleet, providing expert maintenance on the systems.



*“With their engineering base they can provide us with prompt support for on-bus surveillance technology throughout the Keolis network”*

*Karl Orton  
Technical Director  
Keolis Sverige AB*