

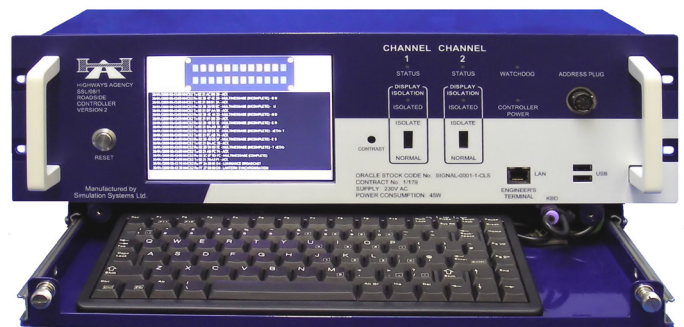


- > COLAS UK
- > HIGHWAYS ENGLAND
- > INNOVATION

Improving Roadside Connections and Delivering Efficiencies

Colas has introduced a new innovative means of communicating with roadside controllers on Highways England's network.

By introducing IP connections, we are now able to control and monitor our various message signs remotely, minimising the number of site visits required to extend the operation of the sign following installation.



Our Approach

Both our RCV2 and RSC (the roadside controllers for our signs) have the ability to be connected via an IP Network, where this facility is available.

This is an improvement over the existing RS485 connection, which has limited monitoring and maintenance capability.

At present, IP connections have been implemented in the majority of Area 9, Area 10 and Area 13.

IP connections deliver an improved and more efficient ability to monitor faults remotely. Fault logs can be downloaded from a central location, without operatives having to attend site each time.

We can then assess the performance of the signs, and where necessary, diagnose the fault remotely, providing a more effective approach to maintaining the equipment once it has been installed.



- > IP connections currently installed on Colas controllers in Areas 9, 10 and 13
- > Up to 40 sites can be upgraded remotely through IP connections in a single shift
- > Reduces the need for Traffic Management, which can cost £1,000's per night
- > Improved road worker safety
- > Minimises carbon footprint of works

Associated Benefits

Reducing the number of site visits that equipment maintainers are required to make provides a number of benefits, including:

- Reducing the unnecessary exposure of workers on the roadside, thereby ensuring safe maintenance of the equipment.
- Removing the need for traffic management, along with the associated costs and time that this would require. Traffic management can cost £1,000's per night, and so manually accessing fault logs before returning to rectify the issue could become very expensive in traffic management alone.

- Minimising disruption for the public by removing the need for either full or partial road closures.
- Reducing the number of site visits by Equipment Maintainers improves their time efficiency.
- No plant is required on site, reducing the carbon footprint of works.

Roadside IP connections give the ability to carry out software and firmware upgrades remotely. In future, when there are new software roll-outs across the entire network, as opposed to visiting each site individually, large quantities of equipment will be available for upgrade simultaneously.

Previously, when attending sites for software roll-outs, two engineers could upgrade around eight sites in one shift, due to the constraints of attending each site individually at night. From now on, when upgrades are carried out remotely, one of our engineers can improve up to forty roadside controllers in one shift, depending on the connection speed of the area.

In addition to the benefits from reduced site visits the entire remote process for administering updates will improve.

