



Saving time and money on unnecessary technician visits.

Our client Siemens Traffic Controls had an ongoing problem in finding enough time for their technicians to physically visit traffic signal installations.

Sometimes the visit was necessary to replace equipment that had been damaged by a road traffic accident, however on many occasions their engineers visited an installation to upload the latest version of the signalling software.

In the majority of instances a traffic signal installation has a very low speed data link, allowing the signals to report back to their control centre.

To us the solution was simple. Although the communications link was only capable of carrying small amounts of data, there were distinct periods of time when the links were not busy.

Our solution was to break up the new version of the software program into very small chunks. Each time there was a quiet period (for example when the signal was sat on red or green) we could transmit a chunk sequentially to the signals controller and then reconstruct them into the original program at the controller.

Each chunk of the program was given a sequence number and diagnostic tag so we knew if we had a missing chunk or if it got corrupted. If a chunk got lost or corrupted the controller could ask for it again.

Finally when the controller was happy that it had the new program, it could notify the control centre. The control centre then sent a quick message telling the controller to update itself.

The resulting solution allowed software updates to be applied in a more timely manner at a lower cost.