Optima Hub

A web based, modular Intelligent Transport System (ITS), hosted and managed by Telent, integrating data from multiple sources into a single unified platform.

Optima Hub is a hosted system that integrates data from multiple sources and is fully scalable, both in terms of the number of assets it can support and the variety of data inputs it can process.

The Hub also enables seamless data exchange with connected traffic signal controllers, supporting event messaging and bus priority communication between controllers.

Its hosted architecture supports mobile working and requires only a modern web browser on any desktop, laptop, or tablet device with an internet connection.

Benefits

- Fully hosted solution with no customer IT infrastructure or ongoing system management required
- Secure access from anywhere, via a standard web browser on desktop, laptop or tablet
- Single, centralised platform bringing all ITS data together in one place
- Enhanced situational awareness, supporting faster, more informed operational decisions
- Scalable and future proof, designed to grow with assets, data sources and evolving requirements

Optima Hub utilises interactive maps and a simple interface, providing users with the required level of detail needed to assess and manage the condition of their roadside assets.

Remote Monitoring

The Remote Monitoring module is at the heart of the Optima Hub. It is capable of monitoring Optima controller and, by utilising the Optima Outstation, controllers from 3rd party manufacturers – including Telent's legacy controllers, the MTC and Sentinel.

Functionality includes:

- Remote handset port access
- Live view of signal and detector states along with controller mode is available for Optima controllers
- Last gasp message on power fail
- Text and email alerts
- Integration with Fault Management Systems

Bus Priority

Industry standard RTiG bus priority messages (RTiGT031) can be passed from a data broker to individual traffic signal controllers to initiate bus priority via hurry calls or MOVA.

Count Data

Centralised collection of count data from suitably equipped Optima Traffic Signal Controllers or Optima Outstations. This count data could include the number of times a phase has run or classified outputs from an intelligent detector for further analysis or export to other tools.

Real world examples of using this functionality have included counting the number of times a pedestrian phase has run to determine crossing usage, including times of day, and the number of times early start cycle phases have run to establish if changes to a junction have been worthwhile.

Air Quality

Centralised collection of data from cost effective, compact sensors which can be fitted to traffic signal poles or street lighting columns. The sensors are capable of monitoring a wide range of gases and particulates. With the data all in one place trends and hotspots can be easily identified.

CCTV

The CCTV module integrates cameras for a step change increase in situational awareness around signalised traffic junctions and crossings. The performance and health of a junction or crossing can now be viewed easily from with the office, or from anywhere with an internet connection and a tablet and/or laptop.

Remote I/O

Event trigger messages can be passed between traffic signal controllers and/or Optima Outstations, connected to 3rd party traffic signal controllers, via the hub using the existing communication system, removing the need for site to site cabling.

Signs

Includes the integration of UTMC003-compliant Variable Message Signs (VMS) to enable streamlined, consistent messaging across the network. It also supports Vehicle Activated Sign (VAS) integration, enabling the retrieval of count and speed data and allows remote configuration of sign settings for more efficient traffic management.

Telent has proven itself as an innovative, experienced partner of our traffic management project and is helping the council deliver value for residents as we improve traffic flow across the city. We're looking forward to building on the success of our partnership with Telent and its solutions, including Optima Hub, which has provided invaluable insights into the performance of our assets and will assist the reduction of congestion, both day to day and around popular events happening in Stoke.

Will Willis, Senior Engineer – Infrastructure

City of
Stoke-on-Trent