

Bringing service to life



Minimising disruption on Stockholm's road network



Serco designed and installed the central traffic management system for the road network in and around Stockholm.

The Swedish National Roads Administration (Vägverket) contracted Serco to provide, maintain and enhance the central traffic management system for the road network around the Stockholm Region. The Central Technical System (CTS) provides overall co-ordination and management of new and existing roadside equipment and systems.



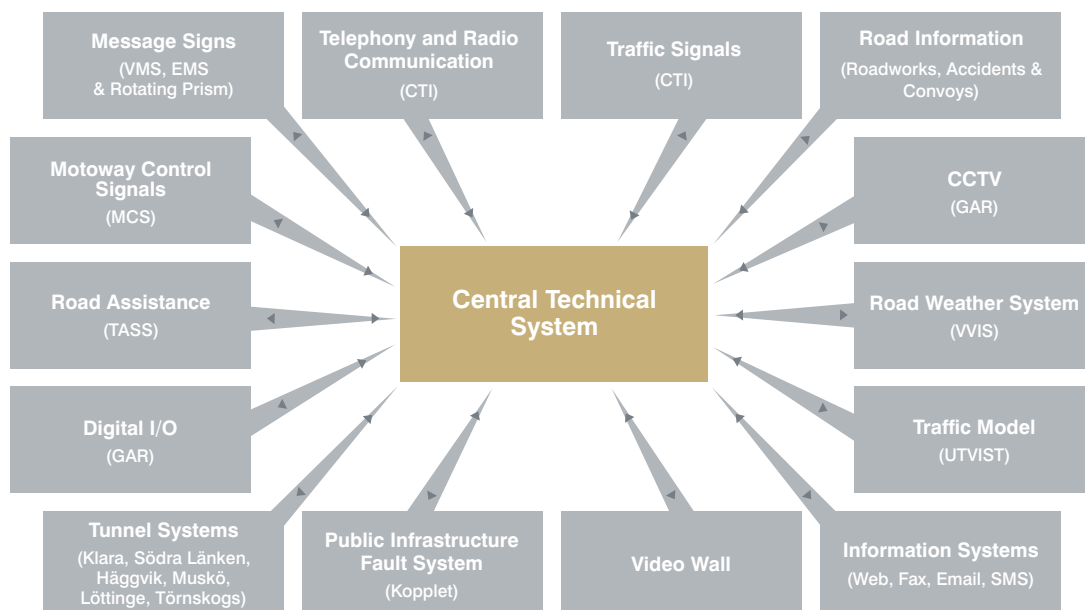
The Central Technical System is designed to minimise disruption on the road network and therefore improve safety of motorists and protect the environment. Surveillance, information and control via the CTS are important in the prevention of accidents as well as the initiation of immediate action once incidents have occurred.

The CTS consists of a computer management system with operator workstations, a video wall, internal local networks and connection to external communications. The task of the CTS is to integrate information from connected

subsystems and other integrated systems into a uniform operator interface, assisting in decision making and controlling subsystems to execute those decisions.

The operator interface provides cartographic and schematic maps that show the status of the road network and equipment dynamically and support scrolling, zooming and layering. From the control centre operator's perspective, the CTS provides functionality to manage events on the network in terms of management of the different types of incident. The Operator is required to follow a workflow to complete a form

Innovative solutions for traffic management



Currently the CTS interfaces with 21 external systems, including six tunnel systems. It is integrated with communications media, including Web, SMS, email, fax and telephone.

detailing the incident and then the system suggests a suitable Action Plan based upon the incident data entered (e.g. location, incident type, severity).

Action Plans, which consist of a number of steps, with a pre-defined flow of control, allow the response to an incident to be pre-planned and automated thus improving and standardising the response to incidents.

The development of this functionality and the common operator interface in general, was undertaken through a series of prototyping exercises involving Serco, Vägverket and control centre operators.



One of Stockholm's busy arterial routes

Enabling safe, swift travel

Lars Jonsson, Vägverket's Project Manager, has stated:

"A lot of people outside the project have noticed that this situation would have been impossible without the CTS. I can confirm that the system we have today has met all the objectives from the initial planning phase. The system will continue to develop, both in terms of improving internal functionality as well as adding new subsystems both similar to what already exists and new kinds, for example, the addition of Maintenance management."

The CTS integrates with the following systems:

- **Traffic Monitoring**
- **Incident Detection**
- **Incident Management**
- **Variable Message Signs (VMS)**
- **Lane Control Signals**
- **CCTV Surveillance**
- **Weather Detection**
- **Video Wall**
- **Communications System**
- **Tunnel Management Control**
- **Urban Traffic Control Integration**
- **Strategic Route Planning**
- **Strategic / Tactical Route
Diversion**
- **Roadside Telephony System**
- **Automatic Pager Notification**
- **Geographical Information
System**
- **Event Management**
- **Automated Fault Management**