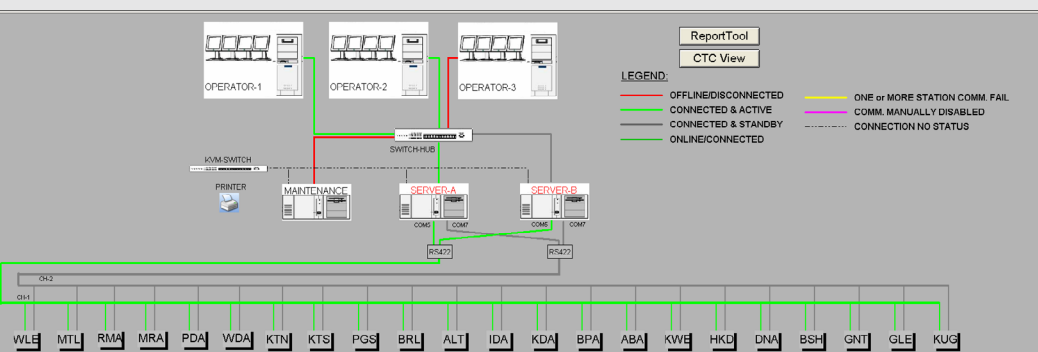
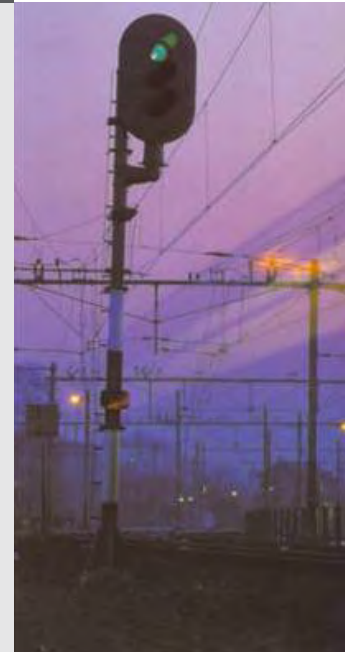


SCADA for Centralised Traffic Control

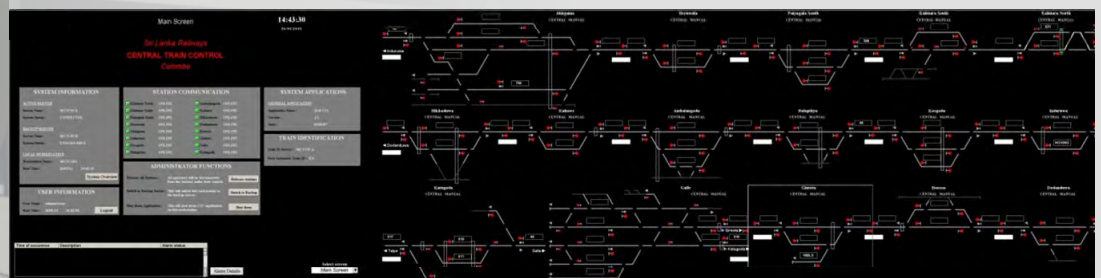
Transport System Solutions has many years of experience in customising Centralised Traffic Control (CTC) SCADA systems, for example in Sri Lanka, Australia and the Netherlands.

The example below shows one implementation of our SCADA CTC architecture. On the bottom row you can see the individual stations and the network backbone, in the middle the redundant server and maintenance terminal and at the top the operator workstations.



CTC Architecture

Our CTC system supports route setting, route cancellation, point control, system and power alarms, provides an overview of the track layout, the location of the trains and the routes set. This system has four user categories: Operator, Supervisor, Administrator and Maintenance.



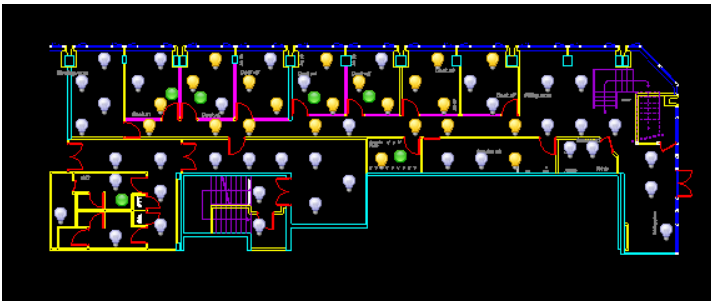
CTC Overview Panel

Other SCADA Applications

Transport System Solutions is not only able to supply and customise SCADA systems for railway signalling, but also for any other system where SCADA control and monitoring is required, such as power monitoring, facility monitoring or alarm management. Our SCADA system supports multiple communications options, including serial, ethernet and radio. If requested, all these SCADA applications can be integrated into one system.

Power Monitoring

The SCADA system can be used to monitor and control electric power sources and distribution systems feeding the traction power substations, and the distribution for the overhead catenary or third rail power.



Example of SCADA Power Monitoring

Examples of the kind of devices our SCADA system can monitor:

- Breakers
- Transformers
- Rectifiers
- Power feeders
- Power sensors
- Switchgear
- Generators
- Health and safety sensors (temperature, equipment alarms, etc)
- Voltage and amperage sensors

Facility Monitoring

Our Facility Monitoring system can monitor and control devices such as access or intrusion alarms, escalators, elevators, lighting, fire and smoke alarms, automatic doors and CCTV.

Would you like to know more about our services, products or projects?

Please contact our Sales Department by sending an email to info@transport-ss.com or go to our website www.transport-ss.com.



Operation Control Centre

Alarm Management

Our SCADA system supports remote alarm messaging, for example to mobile phones, email or pagers, as well as remote access so you can analyse the alarm from any location.

Time	Event	Description - Value	Domain - Nature	Priority
12/04/12 14:00:43	Alarm on - not ack.	Water level -	Water - Level	1
12/04/12 14:00:43	Alarm off - not ack.	Water stream -	Water -	0
12/04/12 14:00:43	Alarm off - not ack.	Fire temperature -	Fire - Temperature	4
12/04/12 14:00:43	Alarm off - not ack.	Electric power supply	Electrical -	2
12/04/12 14:00:43	Alarm on - not ack.	Electric over-tension	Electrical - Overload	3
12/04/12 14:00:43	Alarm on - not ack.	Water level 1 -	Water - Level	11
12/04/12 14:00:43	Alarm off - not ack.	Water stream 1 -	Water -	11
12/04/12 14:00:43	Alarm off - not ack.	Electric power supp...	Electrical -	12
12/04/12 14:00:43	Alarm on - not ack.	Electric over-tensio...	Electrical - Overload	13
12/04/12 14:00:43	Alarm off - not ack.	Fire temperature 1 -	Fire - Temperature	14
12/04/12 14:00:46	Alarm off	Temperature - High...	Temperature - Level	0

Example of Facility Alarm Management

The example shows our capability to manage alarm such as Fire Temperature, Electrical Overload, Power Supply Failure, Water Level and Running Water.