Remote Monitoring System (RMS)

Monitor your traffic control assets

The Dynniq Remote Monitoring System (RMS) provides an easy to use, secure, integrated solution to the management of an ever increasing number of traffic control devices.

Maximising the availability of on-street technology assets helps to minimise the environmental impact of traffic and lowers operating costs. The management of congestion, safety and road user experience are all improved by effective network infrastructure management; the Dynniq RMS supports the need for informed decisions in a timely manner.

Understanding your asset status

With geographic maps that provide an 'at a glance' display of the monitored equipment's real-time status, the Dynniq RMS provides operators with a clear visual aid to traffic management; enabling individual sites reporting problems to be located rapidly and the specific faults identified before sending an engineer to site.

dynniq energising mobility

The system also gives operators the ability to control individual or groups of devices remotely, via the issuing of commands by suitably authorised users; operations can also be scheduled to occur at pre-defined times of the day.

Facilities in the Dynniq RMS can provide an operator with direct access to the monitored equipment's own fault logs for further diagnosis, saving time on-street and increasing efficiency. Tools are also provided to automatically alert service personnel to problems on-site via email and SMS if required. Real-time data can also be collected from suitably equipped field devices to assist in understanding patterns of usage.

RMS improves asset management

Increase efficiency

- Improve fault management throughput by enabling multiple users to access information simultaneously
- Access to the on-street equipment's own facilities enables efficient control of field devices
- Identify issues through field collected data
- Check the coordination of groups of traffic controllers via the time-space diagram (field device support dependent).
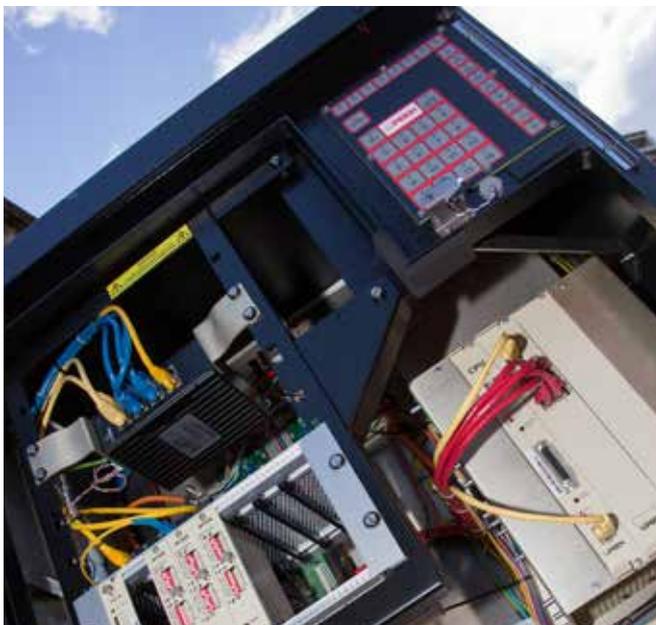
Save time

- Immediate notification of field equipment problems
- Instant SMS and email notification services
- Enable regular and scheduled execution of controlling commands to individual or groups of field devices.

Simplify

- Fault identification through informative geographic, map-based displays
- Fault acknowledgement via active alarms summary
- Users can see what they need to see with tailored views.

Safety

With the above enabling lower asset downtime, traffic safety is also improved.

Modern communications

The Dynniq RMS is a cloud based solution, enabling all users to have remote access using standard web browser software. This approach enables the system to be hosted either by the client/system operator or remotely by a 3rd party. IP based communications support the need for a cost effective network solution on a site-by-site basis.

While designed to take full advantage of IP connectivity, the RMS can be used alongside standard dial-up communications allowing clients an upgrade path. Hosting in our secure data centre gives you the peace of mind knowing that it's always available, however it can be supplied as a stand-alone system in a client's premises.

Supported field devices

The RMS system supports a number of outstation and traffic signal controllers. The supported facilities vary according to device. Monitoring is provided for the following:

- PTC-1®

- EC-2 (Nordic, International, IVERA)

- Via NOLECO – ITC-2, ELC-2, ELC-3

- Via Chameleon – TRX, TSC3, ST400/800/900, MTC, MPC and Sentinel

- Generic UG405 enabled outstation (limited monitoring capability)

- Generic RSMP enabled controller (limited monitoring capability).

The Dynniq UTMS suite

The RMS system is a component of the Dynniq UTMS suite. As such users benefit from a common user interface log-in and seamless integration between the components.

Technical specification

The table below gives a summary of the Dynniq RMS functions and capabilities.

Monitoring of field devices User notifications	• Equipment status and operational data • Immediate operator notification of faults • List of currently active alarms • History events logbook and history database search • SMS and e-mail reporting of critical events (alarms) to individuals or groups of subscribers according to time-table schedules
User interface	• Map-based display showing 'status at-a-glance' of field devices being monitored • Hierarchical views covering the whole system down to local areas, groups of field devices and individual field devices, displayed with configurable pictograms • Multiple areas displayed simultaneously in separate windows • Organisation of field devices into groups relevant to each operator • Multi-lingual browser interface
Remote control	• Commands to individual or groups of field devices (immediate and time-table scheduled) • Detailed field device parameter control
Remote access	• Access to field device local controls as if the operator were on street • Access to traffic controller's web interface
Reporting	• Inbuilt reporting engine enables many standard reports to be produced
Management and user permission	• Users can be allocated into groups with defined permissions • Typical groups defined for Administrators, Traffic Engineers, Service Engineers and Operators
Other functions	• Display of time-space and timing diagrams including recording and playback (requires field device support) • Real-time, user configurable 'site-view' displays • Collection of on-street data from suitably equipped field devices • Interface to ImCity
Mapping data	• Maps downloaded from open-source data (Open Street Map and Google), stored on mapping server or accessed via internet
Support for field devices	• RMS supports multiple field devices by use of adapters. • Facilities available to the RMS user will depend on the capability of the field device and the associated adapter. Additional adaptors can be developed
System capacities	• Over 1000 field devices can be monitored • Unlimited simultaneously logged in users • Unlimited pre-set views • Unlimited SMS and email subscribers
Client software	• Typically, Internet Explorer
Communication	• RMS is fully based on internet technology • Support for both wired and wireless IP networks • Support for dial-up via modem and dial-up router