DCMS  
Data Collection & Management Service

Integrated traffic data network service for  
Autoscope Solo® Software Suite video vehicle detection systems

Description

Today, with Econolite’s DCMS, intersections, mid-blocks, or freeway detection systems can be automated virtual-count stations that gather and distribute traffic data in real-time without interruption.

The advanced network system utilizes off-the-shelf, open-architecture software that complements the field-proven Autoscope® video vehicle detection product suite. DCMS is ideal for freeway, intersection, bridge, tunnel, railroad, traffic monitoring, and incident prevention applications.

A DCMS-integrated traffic data network can link the traffic management center with each IP-addressed vehicle detection system in the field. Transportation officials agree that enhanced center-to-center communication is the key to faster incident response.

Automated data routing will keep traffic flowing, instantly alert road crews to the scene, send updates to freeway message signs to alert drivers of congestion ahead, instantly evaluate traffic data to adjust on-ramp meters to change the flow of cars, or effect real-time changes to traffic signal timing to improve current or anticipated traffic conditions.

Another objective of DCMS is to establish traffic counting and vehicle classification as an integral part of the whole traffic management system. With DCMS, automated, remote connections as simple as a phone line or wireless radio can continuously bring compressed video and data back to a personalized and securely hosted website, then instantly be shared with emergency service providers, transportation agencies, and the driving public.

Benefits

- Enhancing information management security
- Real-time data gathering and sharing to save lives in the event of an accident or dangerous natural occurrence
- Saving time and money by keeping our roadways congestion-free
- Promoting partnerships between public agencies and private companies
- Delivering a true customer-oriented transportation system

Features

- Personalized, secure, and hosted website
- Flexible Internet accessibility
- Real-time, archived traffic data compilation
- Automated traffic data collection, distribution, and inter-agency data sharing
- Advanced traffic data analysis and processing
- Integrated IP-addressed data network
- Reliable detection performance
- Accurate speed, volume, classification, and vehicle counts
- Real-time alarms of critical events
- DCMS includes:
  - Communications to each site
  - Installation and maintenance of all hardware and communications
  - Database development, archiving, and formatting
  - Software upgrades
Applications
- Intersection control and data gathering
- Freeway incident and congestion management
- Incident detection and verification
- Traffic survey data collection and archiving
- Temporary, construction, and work zone safety
- Smart, remote surveillance

Setup & Operation
DCMS includes the installation of a communications link from each traffic cabinet. Via an automated link, traffic data that resides within the vehicle detectors will be extracted and will subsequently set up real-time data polling at a pre-determined time interval.

The data is accumulated on a secure DCMS server for archiving, analysis, and formatting. DCMS will also archive and format data, making it available to designated agency personnel and authorized users via a security code-protected web browser. In addition, DCMS will provide an Internet user interface to allow authorized operators to schedule traffic data routing to other data users. Real-time polling and stored traffic data includes: volume, occupancy, speed, density, headway, and up to five (5) vehicle classifications in many time intervals from 1 second to 60 minutes. Advanced data analysis capabilities provide flexibility in monitoring traffic trends using off-the-shelf software programs.

Detection Systems Supported
- **Autoscope** Product Suite (Solo Pro, 2020, & RackVision)
- Opticom® Priority Control Systems
- Canoga® Vehicle Detection Systems

Data Service
- Internet Protocol (IP) account setup
- Detector file creation
- Password-protected website
- Personalized website design, hosting, and data archiving
- Scheduled data distribution through user-controlled, Internet-based Graphical User Interface (GUI)
- Traffic data analysis in Microsoft Excel spreadsheet format

Service Options
- One-year Service Bundle
- Optional real-time **Autoscope** video snapshot collection and distribution service

Communications
- RS-232/RS-485 communications port
- Wireless cellular modem, Code Division Multiple Access (CDMA), or General Packet Radio Service (GPRS)
- TCP/IP protocol

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