Traffic Monitoring/CARS

IVC provides state-of-the-art cameras and video servers to the Iowa Department of Transportation as it expands its traffic-monitoring network in Des Moines. The video system is being linked to a new, ten-state regional monitoring system called CARS (Conditional Acquisition and Reporting System).

The IVC solution includes 40 IVC pan tilt zoom cameras and uses a TCP/IP protocol, which provides unlimited flexibility and allows future expansions and modifications as needed. The cameras are linked, via wireless Motorola Canopy radios, to a fiber optic backbone. The video data is communicated through this network to multiple IVC Relay Servers deployed at a traffic operations center.

The Des Moines video system is one of the first to be incorporated into CARS, a large inter-agency network for disseminating and viewing information. CARS is now mainly used for traffic and road issues, but it is becoming valuable in other areas as well, including weather, travel, and Homeland Security. CARS operates as an information hub to which various agencies can both contribute and access aggregated information, using only a web-connected computer. The Iowa DOT chose IVC for this project for several reasons:

1. The IVC wireless IP cameras are far easier to deploy than the traditional method of trenching and laying cable.

2. The IVC cameras selected provide superior picture quality and high zoom. Also, the pan-tilt mechanism provides 360° range, and is accurate within one-tenth of a degree. A single camera can cover a very large territory, and is able to read a license plate from 100 meters away.

3. As the developer of the camera management software used for this project, IVC was able to work closely with CARS developers to provide functionality necessary to support the evolving requirements of the system.

As CARS continues to expand, IVC is working with other agencies that are looking to link into the system and/or upgrade their traffic monitoring infrastructure.

"CARS is still in development, requiring a video system that lends itself to customization and that can handle changing requirements. An out-of-the-box system simply would not have worked for this project"

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