

## Minnesota drivers ease on down the road. Axis video servers give real-time internet access to traffic conditions.



Organization:  
Minnesota  
Department of  
Transportation  
(MnDOT)

Location:  
Minnesota, USA

Industry segment:  
Transportation

Application:  
Real-time traffic  
information

### Mission

Because a key to freeway management is providing as much up-to-the-minute information as possible, the Minnesota Department of Transportation (MnDOT) wanted a system that would give visual traffic updates to travelers in the Twin Cities metropolitan area, helping them make informed travel and route decisions.

### Solution

The MnDOT's Metro Traffic Engineering team installed more than 60 Axis video servers to digitize the feeds from its existing 238 analog traffic cameras, enabling real-time traffic images to be distributed over the Internet.

### Result

By using Axis video servers to digitize its existing cameras, the MnDOT is able to distribute images of freeways and traffic conditions via its Web site ([www.dot.state.mn.us](http://www.dot.state.mn.us)). Now travelers can view traffic images from around the Twin Cities metro area and determine the best route to their destination.

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Patrick Osborn, information technology specialist, Minnesota DOT

### Traffic controls

The MnDOT's Traffic Management Center began operation in 1972 to manage the freeway system in the Twin Cities metropolitan area. Today, the system covers more than 80 percent of the Twin Cities metro-area freeway system, with plans to cover the remainder of the freeway system over the next several years.

The MnDOT has approximately 4,000 roadway detectors that measure traffic volume and occupancy on the covered roadways as well as more than 65 dynamic messaging signs that alert drivers to road conditions, accidents or unusual congestion. There is even a radio station that gives traffic updates every 10 minutes during peak times. However, with approximately 3.4 million cars driving a total of 30 million vehicle miles each week day, the MnDOT wanted to utilize additional cost-efficient methods to keep people moving at a controlled and smooth pace.

"We already had more than 200 analog cameras – to scrap a camera installation of that size and start from scratch was not an option," said Patrick Osborn, Information Technology Specialist for the MnDOT. "The low cost per video input and the flexibility of the video servers were the most attractive features. They gave us the capabilities that we needed today with the room to expand in the future."

### Seeing is believing

The MnDOT's Web site provides easy access to traffic photos that are updated once per minute, enabling travelers to plan the best route in advance and to avoid conditions such as snow plowing, accidents or construction. In addition, web-based congestion and incident maps can be provided almost instantaneously to media outlets, law enforcement agencies, firefighters and paramedics.

The traffic updates on the web site have been immensely popular with Twin Cities residents as well. On a typical day, the site receives between 3,000 and 4,000 visitors, with each visitor viewing multiple cameras. On snow days, it is not uncommon for the site to get more than 35,000 visitors.

"We consider this installation to be a tremendous success," Mr. Osborn said. "By using Axis video servers, we found a cost-effective solution that helps us accomplish our goal of making freeway travel easier and more efficient for the residents of the Twin Cities."

