

New York City DOT: miles ahead.

Axis network cameras and video servers provide city and travelers with real-time traffic information.



Organization:
New York City
Department of
Transportation
(NYC DOT)

Location:
New York City, USA

Industry segment:
Transportation

Application:
Real-time traffic
information

Axis partner:
Visual Security

Mission

The New York City Department of Transportation (NYC DOT) wanted to upgrade its existing traffic monitoring system, which was based on analog technology. The agency was looking for a solution that could improve safety and security by sharing images with other government agencies and the public, while reducing maintenance costs.

Solution

Working with Axis reseller Visual Security, the NYC DOT installed 20 Axis video servers to upgrade its 80 existing analog cameras with Internet Protocol (IP) capabilities. In addition, for locations that couldn't be reached by wired Internet connections, the agency installed six network cameras with wireless modems to transmit traffic images.

Result

For less than \$30,000, the NYC DOT now has a state-of-the-art traffic monitoring system that allows the agency to share real-time images with travelers over its Web site, at <http://nyctmc.org>. The system reduces maintenance costs by being virtually self-sufficient, and it provides the NYC DOT with the ability to share traffic images over the Internet with other government agencies.

"The NYC DOT is now getting much better image quality at a lower overall system cost."

Cindi Ochs, system specialist, NYC DOT

Extensive upgrades

The NYC DOT manages much of New York City's transportation infrastructure, including streets, sidewalks, highways and bridges. The NYC DOT also installs and maintains street signs, traffic signals and parking meters, and it manages municipal parking facilities.

As part of managing such an extensive transportation system, the NYC DOT relies on video images from around New York City's five boroughs: Manhattan, Brooklyn, Queens, Staten Island and The Bronx. Because the traffic monitoring system was based on obsolete analog technology, the department needed to upgrade to a more advanced system that could handle the growing demands of the city's traffic conditions.

"Before the upgrade, we were relying on a video system that could only provide one image every four minutes," said Cindi Ochs, system specialist for the NYC DOT. "That made it very difficult to analyze traffic patterns and assist in security measures, such as tracking suspicious vehicles. In addition, we could not put the analog video feeds online, so we could not share real-time traffic conditions with the public."

In addition, the city's analog video solution required a dedicated PC with a video capture card for each camera. The PCs often crashed, and the streaming media solution used large amounts of bandwidth to provide quality images.

Road to success

Since Visual Security added the Axis equipment, the NYC DOT's traffic monitoring system has become much more effective. The ability to transmit images over the Internet has opened many doors for the department, including enhanced real-time traffic communications through its Web site. The system's improved frame rate and image clarity also provides another level of security to the city's streets and bridges.

"The NYC DOT is now getting much better image quality at a lower overall system cost," Ms. Ochs said. "In addition, we are able to get a new image every second, which vastly improves our ability to analyze traffic patterns and assist the city with vital traffic information in case of an emergency."

The Axis network cameras and video servers also enabled the city to do away with the unreliable PCs. Axis equipment contains a built-in operating system and web server, which makes the system virtually self-supporting and limits the amount of time the NYC DOT must spend rebooting computers or making other technical adjustments. The system does not overload the NYC DOT's network because the image format does not require large amounts of bandwidth to transmit high-quality images.

The Axis equipment also proved to be beneficial in areas that were traditionally hard to reach with Internet connectivity. The department was able to use Axis network cameras with wireless modems to transmit images from areas such as the 59th Street Bridge.

"Upgrading our traffic monitoring system to an IP-based system has been tremendously beneficial," Ms. Ochs said. "The NYC DOT now has a more flexible and reliable system for a lower total cost of ownership."

