



Upgrade Improves Image Quality, Reduces Maintenance for the Pennsylvania Turnpike

The Pennsylvania Turnpike Commission (PTC) manages and responds to traffic over its 552-mile roadway system which typically serves 500,000 customers each day. The PTC's mission is to provide a safe, reliable, customer-valued toll road system that supports national mobility and commerce.

As part of its most recent modernization efforts, the PTC sought to replace all of the analog roadside video cameras used to monitor traffic flow and conditions along the Pennsylvania Turnpike. Needing a technology partner, the PTC selected traffic control and management solution provider Signal Service, Inc. to implement the system upgrade to Bosch AUTODOME IP cameras that are designed for intelligent transportation system applications. Signal Service worked with the PTC's networking consultant to ensure the Bosch AUTODOME IP cameras would meet stringent data security and NDAA compliance requirements.



Now, 80 AUTODOME IP starlight 7000i cameras are installed on 50 to 80 foot poles along the Pennsylvania Turnpike. The cameras help employees in the PTC's Traffic Operations Center to fulfill their mission to quickly identify roadway incidents, disseminate information to the public, and dispatch the appropriate resources to provide a rapid response to customers in need.

The new HD cameras provide the PTC's Traffic Operations Center with higher quality images, especially at night. The development of additional video analytics capabilities will be important as the partnership moves forward. The cameras are also NEMA TS2-rated for transportation environments and offer H.265 compression to reduce bandwidth consumption.

Upgrading the infrastructure to IP enabled the PTC to eliminate the need for video encoders and to use PoE midspan injectors, resulting in reduced maintenance requirements and costs for the system. Signal Service also replaced the camera lowering technology from MG Squared (MG2) to install the latest MG2 CAT6a Ethernet Lowering Devices.



Ryan Brown, President, and Stephen Dowdall, ITS Director, for Signal Service, Inc.

"The project was completed on time and on budget," said Stephen Dowdall, Director, Intelligent Transportation Systems (ITS) for Signal Service, Inc. "Through accurate planning and working closely with the Pennsylvania Turnpike Commission, we finished the project in a timely manner despite challenges associated with the COVID-19 pandemic."

The IP cameras integrate seamlessly with the PTC's recently upgraded video management software – Genetec Security Center. This integration also supports advanced features of the AUTODOME IP cameras, such as built-in Intelligent Video Analytics.