Systems Engineering for Video Switch

September 2016

Location: Statewide
Partners: MnDOT Districts, Regional Transportation Management Center
Total project cost: $29,510
Project completion: June 2017

Description of project

MnDOT is completing systems engineering analysis for the replacement of an analog video switch that is used to manage cameras throughout the Twin Cities Metro Area. The current analog video switch is a Pelco model 9780, 1024-256. It has 700 analog cameras currently inputting to it and there are two additional video management systems that allow MnDOT to export video files for archiving and traveler information purposes. The switch is also used to provide four local television stations with a feed that allows them to view one analog video per station. Cameras located outside the Twin Cities Metro Area are managed with a combination of IRIS, Milestone and Cameleon video management software. The goal of this project is to complete systems engineering analysis to support MnDOT with replacing the outdated, localized analog video switch with an updated switch that is Internet Protocol (IP) based and can be used as a statewide solution.

RTMC control room, work station and split monitor view

Benefits

Replacing the analog video switch will allow MnDOT to:

- Leverage current technology for sharing video with partners and travelers
- Provide a statewide solution
- Streamline video switch operations and maintenance

Next steps

- Identify challenges and needs to develop a concept of operations for the video switch
- Develop system requirements based on needs identified in the concept of operations
- Develop a test plan to validate system requirements

For More Information

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