

**HI-012d**  
**Video Monitoring with Optimization and Analytic Software**

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**Abstract**

We will provide an analysis of the hardware and software required to perform CCTV monitoring from a mass transit vehicle. Our analysis will describe the performance and cost of various cameras, video recorders, and communications technologies, describing the tradeoffs with respect to number of cameras and frame rate. We will also study the use of commercially available facial recognition software to compare cost and performance. Where possible, we will use existing standardized benchmarks to provide a reference point for our comparison. Depending on Bombardier's priorities, we can address some of the following topics in the first or subsequent years: passenger counting and detection of unattended objects, gunshots, and specific languages.