

SerVision's MVG Restores Calm to School Buses



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School Bus Chaos

The environment inside a school bus can be frightening to the bravest of drivers. With up to fifty children on a school bus, the lone bus driver cannot possibly fully control what takes place behind him. The stressful environment can also lead to unsafe driving including speeding and other traffic violations. For the particular municipality of Southern Sharon, the incidents became too frequent, and a change was needed. Bus driver Yoel Aharon attests, "There were a lot of problems, children would fight, jump around, climb on top of each other, throw things at each other and out of the windows." Head of the Southern Sharon Regional Council Moti Delijo agrees, "Substantial damage has been caused by children, sometimes intentionally and sometimes not." The Southern Sharon Regional Council wanted a solution that allowed drivers to focus on safely transporting their children, while at same time significantly reducing daily episodes of violence and vandalism.

Calming the storm

After weighing its options, the council decided the best way to combat disorderly conduct and increase safety would be to install a surveillance system that transmits real time images from the buses directly to the school

district's transportation offices. In need of a mobile solution that could stream live video over a cellular network, Southern Sharon turned to SerVision and the MVG400. SerVision's MVG400 is a four channel mobile DVR that is optimized for streaming high quality video at extremely low bit rates, making it an ideal solution for the remote monitoring of vehicles and other mobile platforms. Yakov Sheinu, Director of Transportation for Southern Sharon stresses the ability to stream live video from multiple cameras, "I've got two cameras capturing the interior of the bus; one in the front watching the full length of the bus, and one in the back streaming video of what is going on at the rear of the bus. A third camera is located in the front and faces the road. It is intended to help monitor driving behavior." Sheinu can remotely download video of any event where students are believed to have destroyed property and forward incriminating evidence to the school's principal for further discipline. The MVG is constantly recording, allowing a manager to go back up to 90 days after an event has occurred to verify the details of the incident.

Fitted with a built-in GPS module and sensors that can detect certain events, the MVG400 also allows Sheinu to monitor his drivers' whereabouts and speed violations.



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Utilizing a combination of the MVG's speed alerts, G-Force sensors, and Geo-fencing capabilities, Sheinu and his staff receive updates on drivers' speed based on GPS data, erratic driving behavior, and any deviations from the intended route. If any red flags appear, they can immediately contact the drivers through the MVG's bi-directional audio feature.

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A new bus atmosphere

Following the installation of MVG's into their fleet of school buses, Southern Sharon saw a dramatic decline in on-bus vandalism, and overall improvement in children's behavior. Driver Aharon expresses, "The children are less wild, they have calmed down and now behave the way they are supposed to behave on a bus – they sit down, put on their seat belts and in general have quieted down."

His comments are reinforced by a TV report from ABC's 20/20 on school buses in Massachusetts, where it was observed that children behaved significantly better when they were aware that surveillance cameras were on.

Sharon Goldman from the School of Medicine at Tel Aviv University published research into the effects of this particular project in Southern Sharon, and she found that the use of the MVG400 to monitor drivers' behavior and driving led to a nearly 10% drop in traffic violations and unsafe practices committed by the drivers. The on-board system protects the drivers from unsubstantiated legal claims, while also securing the safety of the students from reckless driving.

The Israeli National Center for Trauma and Emergency Medicine Research concludes that a video surveillance system is the only way to properly monitor a driver's behavior and be comfortable with children's safety on school buses. Sheinu remarked that "Friction between the students has decreased and vandalism on the buses has dropped dramatically." He and other council officials are hopeful that the project will be adopted by other school districts across Israel.

MVG400

The MVG is SerVision's Video Gateway series for large-scale mobile applications such as buses, trains, police vans, delivery trucks and emergency response vehicles. The platform's anti-shock, vibration resistant chassis ensures reliability on the go.

The MVG uses SerVision's advanced video compression, which provides high-quality video at low bitrates. With integrated support for cellular and Wi-Fi transmission, the MVG streams multiple channels of live or recorded video from vehicles to remote client devices.

Designed for effective management of mobile units, the MVG provides GPS support for tracking purposes and bi-directional audio for communication with dispatchers and other personnel. A closed-circuit monitor enables drivers to see what is going on in every corner of the vehicle at a glance.

