

# Addressing Security Incidents with On-board Video Technology



*Seon's video surveillance systems help BC Transit reduce incident liability resolution times by up to 700%*

For BC Transit, getting an accurate, timely view of what's happening on their fleet is key to minimizing and addressing security risks for passengers, operators and their agency as a whole.

**Stephen Anderson**, Manager of Corporate Safety, Security and Transit Supervision at BC Transit, says, "Every year we connect over 50 million customers in 130 communities across British Columbia province, from small towns to urban cities. Our passengers expect outstanding service and we must meet their expectations. In cases of incidents on the road, we want to have access to more information on what happened to address the situation properly. Currently, we have 1061 buses operating regularly and prior to working with Seon, we didn't have any video surveillance systems installed on our fleet. Without video, there was no easy way to investigate a reported incident, assess liability and respond with confidence. We had a suspected high ratio of ICBC claims assessed at 50 and 100% liability. So we started looking for a solution that could help us improve incident response and reduce associated costs."

## COMPANY PROFILE

### BC Transit

**Location of the Head Office:** Victoria, BC

**Industry:** Public transportation

**Fleet Size:** 1,061 vehicles, 83 transit systems

**Ridership:** over 50 million customers

## CHALLENGE

- No easy way to investigate incidents and assess liability
- High ratio of legal claims at 50 and 100% liability

## SOLUTION

Video surveillance systems for 108 buses, wireless access to recordings for 50 buses, and vMax Commander video management software.

## RESULTS

- Up to 700% reduction in incident liability resolution times
- 47% Reduction in 50% Liability Assessments

After a public bid process, BC Transit selected Seon as the mobile surveillance vendor for their Proof of Concept project on 108 buses in Victoria and Kamloops.

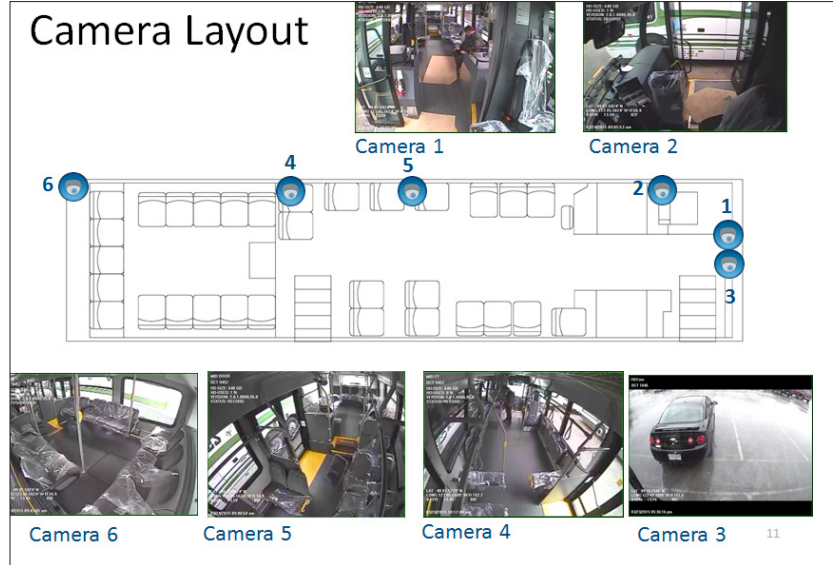
*“The video footage helped resolve 64% of liability cases without further investigation.”*

**Stephen Anderson, BC Transit**

## Video Systems for 108 Buses

BC Transit decided to install video surveillance systems on 108 vehicles in two communities located 450 km apart: Victoria and Kamloops. Each bus was equipped with 5 interior dome cameras, one high-definition windshield camera for a forward-facing view, a 13-channel DX-HD Digital Video Recording System with a GPS Antenna for vehicle telemetry, and vMax View playback software in the office for video review. This software has some unique features for the protection of video content with secure password, privacy blurring, and a file check feature to ensure video has not been modified from original recording.

“In April 2015, we installed 25 systems on new CNG New Flyer buses, and 82 systems - on Nova Buses, and on 1 double decker bus,” recalls Anderson. “The Proof of Concept project ran for a year until April 2016. All recorded video was reviewed in a central location in Victoria by our safety and security team of three people.”



Here is an example of the camera positioning on a Nova bus in Victoria. Camera 1 at the front gives a view to the rear of passenger seats, front door, stepwell and some of the driver seat and fare box area. Camera 3 is a forward-facing view of what the driver sees. Camera 4 was positioned mid-ship facing forward to capture passenger activity in the front, mid-section of the bus. Camera 5 completed coverage of the mid-passenger seats and the mid-ship entry/exit door. Finally a sixth camera at the rear was positioned to give a clear picture of all rear passenger seats.

Half the buses in the project were equipped with a wireless bridge allowing easy video retrieval via a Wi-Fi network. vMax Commander video management software allowed authorized staff to trigger automatic downloads based on alarm conditions such as a sharp turn or hard brake, easily locate relevant video and schedule downloads upon request, as well as better manage video system configuration and download video clips. The other half of the buses required going out to the buses to remove a hard drive and then using a docking station to access



**Stephen Anderson** - Manager of Corporate Safety, Security and Transit Supervision, BC Transit

*“The visible presence of security cameras on board buses has directly contributed to a positive sense of security amongst BC Transit’s ridership. Along with the success in prosecutions and liability case decisions during the last 12 months, the program expansion is inevitable!”*

the video footage.

Anderson explains, "When we launched the project, we wanted to prove three things: 1) video systems provide a good return on investment, 2) that the benefits will outweigh the expenses on maintenance and footage retrieval, and 3) that video can have a significantly positive impact on the efficiency of our fleet and the safety of our passengers."

## Reducing Incident Investigation Times and Liability Costs

"A year after video systems were installed, we collected the results and evaluated the project. The outcome was impressive," describes Anderson. "Our safety and security team in Victoria reviewed 1412 video events, 512 of which led to the creation of case files and ongoing investigations. This video footage was sufficient to resolve 64% of liability cases without further investigation. This is a significant number!"

BC Transit retrieved video for a variety of reasons ranging from a minor bylaw offence or mischief to criminal investigations and assault. The agency was asked to provide footage to support liability decisions and insurance claims by a few government organizations, ICBC and other institutions. 69% of the recordings were accessed

by authorized staff via wireless video download, improving the efficiency of evidence production.

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*"We noticed in some cases a marked reduction in the time it took to review and conclude an ICBC investigation. Even though we calculated that the average amount for processing and reviewing a video was 1 hour per event, it is nothing compared to the hours spent interviewing witnesses and gathering information to support a claim when video was not available. Video evidence also significantly improved the ratio of 50% liability findings by ICBC. In fact in cases where CCTV footage was available 50% liability assessments were reduced from 50% to less than 3%."*

**Stephen Anderson, BC Transit**

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Mobile surveillance also proved to have an impact when it came to assault and criminal cases. Over the 12 month period, video evidence lead to a guilty plea by defendants in all cases. The significant expense of a trial and associated legal fees were completely avoided.

An example of this is an operator assault that happened in Victoria in September. The screen shot of two frames of the video shows a passenger assaulting a bus driver while the bus was moving.



Video evidence showed the speed the bus was travelling that day and the time the incident occurred which led to an increase in charges levied against the assailant from simple assault and battery to egregious assault causing public endangerment. Video footage was used to arrest the suspect and when he was shown the footage during the interview and presented with the likely charges and penalties, he pled guilty avoiding a costly trial.

This is just one example of how video evidence helped BC Transit avoid a costly legal battle, but in all recorded events involving liaison with the police, all suspects pled guilty, either after viewing footage of themselves, or in some cases even after being informed that video footage of the incident was readily available.

Anderson sums up the results of the Proof of Concept project, "Overall, the cost of the entire project was recouped within the first few weeks. Seon's video systems saved us from headache of dealing with trials and tedious incident investigations while providing us with



authoritative evidence. The Proof of Concept project showed us an absolute return on investment in video surveillance which resulted in increased efficiency of our agency, as well as security of our customers and employees."

*Learn More:*

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of Reviewed  
Assault Cases



**47%**  
**Reduction** in 50%  
Liability Assessments