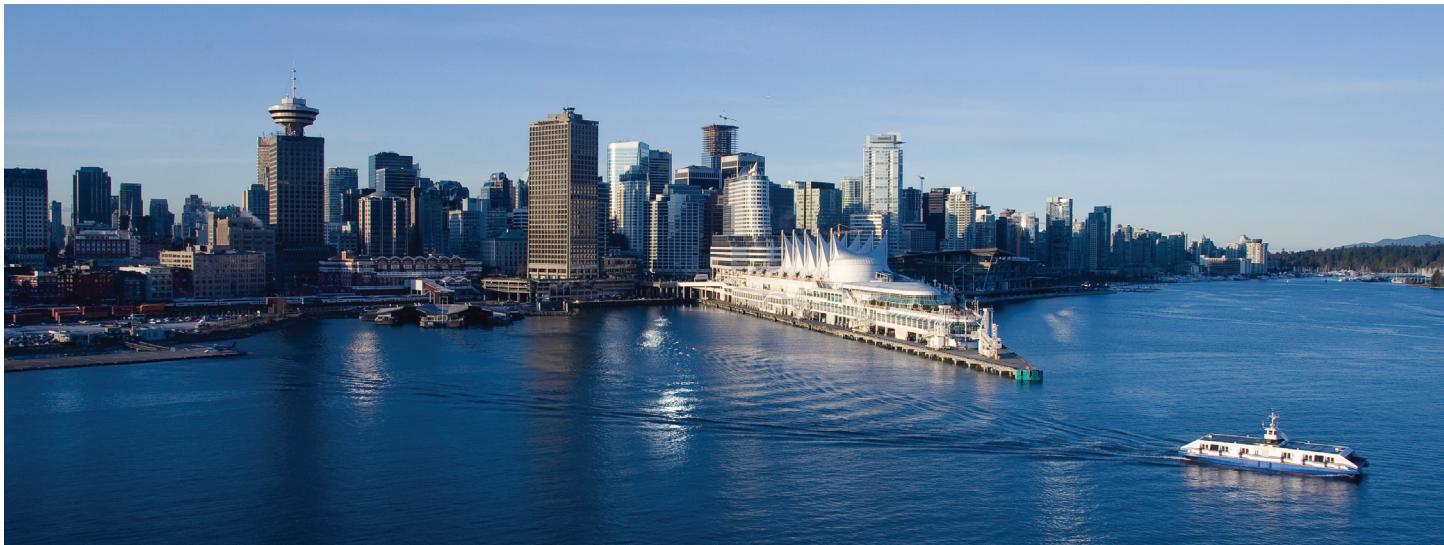


City of Vancouver, British Columbia

AVIGILON
THE BEST EVIDENCE™



Challenge

Provide the City of Vancouver Emergency Operations Center (EOC) and Vancouver Police Department (VPD) with broad situational awareness to assist in the maintenance of public order and safety during the Vancouver 2010 Olympic Winter Games.

Market: Government

Location: Canada

Solution

Five key areas in downtown Vancouver were monitored 24/7 with the Avigilon high-definition surveillance system using a combination of 5 MP, 11MP and 16 MP Avigilon HD Cameras, 5 MP Avigilon HD dome cameras, and PTZ cameras connecting to more than 30 Avigilon analog video encoders for improved performance. Managers seamlessly managed the Avigilon high-definition surveillance system using the Avigilon Control Center network video management software (NVMS) with High-Definition Stream Management™ (HDSM) storing up to 21 days of footage.

Featured Products



ACC Software



5 MP HD Dome Camera



16 MP HD Pro Camera



11 MP HD Pro Camera



5 MP HD camera



Analog Video Encoder

Benefits

The Avigilon high-definition surveillance system delivered full situational awareness to the City of Vancouver and VPD at key sites during the Vancouver 2010 Olympic Winter Games, leading to improved communication between all agencies and the most strategic and effective crowd management possible. With clear, real-time access to events, the City was able to respond strategically to incidents and deploy only the necessary resources required, resulting in better public control and cost-savings.

- Full situational awareness

- Faster response times

- Flexible & scalable

- Improved communication



City of Vancouver Deployed Avigilon High-Definition Surveillance System to Gain Broad Situational Awareness During Vancouver 2010 Olympic Winter Games

While there were no credible threats against the Vancouver 2010 Olympic Winter Games, the City of Vancouver developed a security plan that could stand up to even the worst possible threat. With public safety a top priority, the City and Vancouver Police Department (VPD), along with other provincial, federal, and private agencies, also wanted to facilitate – not repress – the opportunity for peaceful and lawful protests in an effort to protect free speech and privacy rights in Canada. Striving to respect the true Olympic spirit and dedicated to providing effective crowd management, the City deployed the Avigilon high-definition surveillance system at three key areas in downtown Vancouver, giving broad situational awareness to administrators, police officers, first responders, and traffic engineers whose job it was to maintain public order and safety during the Vancouver 2010 Olympic Winter Games.



Birds-Eye View of Downtown

“The Avigilon high-definition surveillance system is a powerful, flexible, and scalable end-to-end surveillance solution that gave us a birds-eye view of the downtown core during the Olympic Games.”

“As director of emergency management for the City of Vancouver, it’s my job to plan and prepare for any major emergencies or disasters that might befall the city,” explained Kevin Wallinger. Providing a common operating picture to all agencies across the jurisdiction, the City’s state-of-the-art Emergency Operations Center effectively coordinates all necessary resources – from police, fire, and emergency response personnel to transportation and traffic engineers – and prioritizes capabilities in the event of disaster. But facing an influx of millions in the downtown core during the Vancouver 2010 Olympic Winter Games, Wallinger and his team realized there was an added need for a real-time situational awareness tool that could provide all agencies with an up-to-the-minute view of what was going on in key areas of the city, including Granville Street, Robson Street, and Hamilton/Mainland Streets in the entertainment district. “The Avigilon high-definition surveillance system is a powerful, flexible, and scalable end-to-end surveillance solution that gave us a birds-eye view of the downtown core during the Olympic Games, unobtrusively delivering the situational awareness we needed to ensure public order and safety while maintaining privacy rights.”



Avigilon Delivers Broad Situational Awareness

Over a 60 day period, Robson Street, Granville Street, and Hamilton/Mainland Street corridors in the heart of downtown Vancouver were monitored 24/7 using the Avigilon high-definition surveillance system. At the Granville corridor, fourteen 5MP Avigilon HD cameras, two 11MP Avigilon HD cameras, and two 16MP Avigilon HD Cameras were installed at intersections for maximum situational awareness, while PTZ cameras were connected to eleven Avigilon Analog Video Encoders for improved performance. At Robson Street and Hamilton/Mainland Street, a 5MP Avigilon HD camera along with additional PTZ cameras connected to twenty Avigilon Analog Video Encoders were wirelessly connected to several city-owned facilities where fibre infrastructure was available. The City also installed six 5MP Avigilon HD dome cameras with integrated IR illumination and nine PTZ cameras connected to three Avigilon Analog Video Encoders at two additional Olympic live entertainment sites. These installations were connected to the network via the City's fibre backbone.

Emergency Operations Center staff seamlessly managed the Avigilon high-definition surveillance system using the Avigilon Control Center network video management software (NVMS) with HDSM on five workstations and stored up to 21 days of footage on four servers. Additional workstations were set up at the Vancouver Police Department and the City of Vancouver Traffic department for added monitoring.

"The image clarity and performance of the Avigilon high-definition surveillance system far surpasses that of our previous analog-based solution."

Improved Image Clarity

The Vancouver 2010 Olympic Winter Games is not the first situation in which the City of Vancouver temporarily deployed surveillance cameras for the purpose of acquiring situational awareness. "Every summer, Vancouver hosts a fireworks display called 'The Celebration of Light' that attracts 1.2 to 1.5 million spectators over the course of four nights in a two week time span," explained Scott Raesler, manager of the Emergency Planning Unit of the Emergency and Operational Planning Section at the Vancouver Police Department. In the past, the City installed an analog-based solution using PTZ cameras at key areas across the city to manage the crowds. "The image clarity and performance of the Avigilon High-Definition Surveillance System far surpasses that of our previous analog-based solution."

Wallinger agrees that there was a huge improvement in picture quality with the Avigilon High-Definition Surveillance System. "Tasked with monitoring the downtown core around the clock and in the dead of winter, lighting was an issue for us," said Wallinger. "We were quite impressed with the image clarity we were able to achieve, even at night."





An End-to-End Solution

Besides image quality improvements, the Avigilon high-definition surveillance system offered another critical advantage to the City: “Avigilon is an end-to-end surveillance system that includes HD cameras, analog video encoders, network video, and an exceptionally powerful and intuitive network video management software solution to ensure maximum performance of our high-definition surveillance solution,” claimed Wallinger.

Because Avigilon is an end-to-end solution, the City was able to easily make adjustments to meet last minute requests for added cameras, users, or storage requirements as they arose. “We did not have a lot of time to get a very complex surveillance system up and running, and as we got closer to the Games, we saw a growing interest from other City departments, including transportation and traffic engineers who wanted access to the cameras without compromising privacy considerations.” explained Wallinger. The City had to scale and reconfigure the surveillance system to meet new requirements on the fly, something they were able to do because of Avigilon’s scalability and flexibility.

“Avigilon worked with us to modify the system as needed.”

“In a high pressure event management situation like this, ease-of-use was critical to maximize the system’s performance.”

“Although we were working in a very chaotic environment, we quickly got in the groove of using the system’s features, such as bookmarking events, for investigative purposes.”

Flexible Software for Effective Management

Avigilon Control Center software’s advanced functionality and simple management tools were also critical to the City’s overall success in providing full situational awareness during the Vancouver 2010 Olympic Winter Games. “In a high pressure event management situation like this, ease-of-use was critical to maximize the system’s performance,” commented Raesler. Operators quickly learned how to manipulate the system to drill down into an image and quickly identify or disregard an issue. “Although we were working in a very chaotic environment, we quickly got in the groove of using the system’s features, such as bookmarking events, for investigative purposes.”



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Better Communication Equals Better Crowd Management

With real-time access to events in the downtown core, the City was able to achieve widespread situational awareness for improved communication between all agencies, resulting in the most strategic and effective crowd management possible. “Lack of situation awareness can make police officers nervous, sometimes leading to a more assertive response on the ground,” explained Raesler. “And because we were working with disparate groups that did not necessarily share the same approach to public order maintenance, it was even more important that we had the full picture.” With the Avigilon high-definition surveillance system, first responders were better equipped to make strategic decisions in the event of an incident.

General situational awareness also meant that the City and VPD could be more strategic in the deployment of resources to more effectively respond to emergencies, anticipate traffic and transportation issues, and predict crowd movement. “With a more realistic view of events, we avoided situations where we would normally have had to call in reinforcements, resulting in significant cost savings,” added Raesler.

The City was also able to leverage the Avigilon high-definition surveillance system for event planning. “We used the Avigilon surveillance system to track the torch relay and monitor the crowds to address traffic challenges through the downtown corridor,” said Wallinger. Traffic and transportation engineers have also used data collected by the Avigilon system during the Vancouver 2010 Olympic Winter Games to assess and analyze pedestrian counts and traffic patterns for future event planning.

Knowledge is Power

According to Wallinger, the true success of the Avigilon high-definition surveillance system lies in the fact that his team had access to information about local incidents much faster than before. “I receive news alerts from our local radio station throughout the day, and in the past, I would always get them 15 to 30 minutes before I would hear about an incident from other sources,” explained Wallinger. “With the Avigilon surveillance solution in place, I actually got the information at least 30 minutes before the news alerts came in – a dramatic improvement in our communication abilities and overall awareness.” With faster access to critical information, the City was able to proactively mitigate situations for improved public safety.

“The Avigilon high-definition surveillance was a key element of our overall security initiative and easily addressed our complex and challenging conditions.”



A New Benchmark in Public Safety

Having effectively deployed its comprehensive security plan, the City of Vancouver successfully maintained public order as unobtrusively as possible during the Vancouver 2010 Olympic Winter Games and has set a new benchmark for future Olympic cities. “With access to real intelligence and excellent cooperation between all agencies, we were able to ensure public safety without impacting the public’s right to privacy or freedom of speech,” concluded Wallinger. “The Avigilon high-definition surveillance was a key element of our overall security initiative and easily addressed our complex and challenging conditions. We now have a solid infrastructure in place to manage public safety at future events in the city.”