

Case study



AVIGILON™

Helping to protect Kelowna's people and critical infrastructure

Avigilon Unity & City of Kelowna case study



Located in the heart of the Okanagan Valley, Kelowna is a vibrant city nestled in southern British Columbia, Canada. With a population of nearly 150,000 people, it is the largest city in the Regional District of Central Okanagan and continues to attract visitors from around the world with its stunning mountains, lakes and vineyards.

As with any growing city, there is a need to focus on protecting people and the infrastructure that helps keep the city running safely. The City of Kelowna organization helps to manage the city and understands this great responsibility. As a result, they have taken enormous strides to develop a place with a strong sense of community and a high quality of life. Indeed, its vision is to make Kelowna a city of the future.

Safety and security are foundational in achieving these goals, which is why the City of Kelowna has implemented various technologies to ensure their delivery.




Customer Profile

Kelowna, BC, Canada

Industry

Local Government

Solutions

-  Avigilon Unity Video video management software (VMS)
-  AI-powered video analytics
-  H5A Thermal cameras
- H5A Multisensor cameras
- H5A Bullet cameras

Benefits

- Avigilon's security cameras and Unity Video VMS have enhanced situational awareness at the Mill Creek Flood Protection site. The City of Kelowna can now better protect the flood diversion site.
- The Avigilon Unity solution has proved successful in helping the City of Kelowna safeguard the vulnerable population at the Rail Trail shelter and easily investigate any incident.
- With the early detection of fires at the Rail Trail site, the City of Kelowna has drastically reduced the response times of first responders from 15 minutes to four minutes.



Challenge

Vandals targeting critical infrastructure

Kelowna is prone to flooding. With multiple rivers and lakes, the City of Kelowna understands the importance of flood prevention structures to help safeguard people and property. However, when these infrastructures are the target of regular vandalism, it can put the safety and security of thousands at risk.

One site that was prone to vandalism was the Mill Creek Flood Protection site. This multi-million dollar critical infrastructure reduces flooding potential throughout Kelowna and safeguards people and property by redirecting flood flows to Mission Creek via a tunnel.

Vandals have targeted this site over the past few years by forcing themselves through fencing and, on one occasion in 2022, causing damage that led to the site being non-operational for three months. Thankfully, Kelowna didn't experience any flooding during those three months, but the consequences could've been devastating had the river levels risen substantially and the site could not redirect excess flood flows.

Something needed to be done to detect and ward off the vandals who targeted the remote site and the infrastructure that helped protect the city.

Protecting the most vulnerable

With any growing city, there is likely to be a displaced population. In Kelowna, there is a shelter at the Okanagan Rail Trail where over 100 people camp out.

Unfortunately, many shelter residents rely on gas stoves to provide heat, which has led to fires. Sometimes these gas stoves and other heat-emitting devices have been used inside tents which can lead to serious health risks as a result of the gases released by the devices. Vehicle incidents have also occurred at the Rail Trail encampment, causing extensive damage and severe injuries, posing a substantial risk to the local area and its population.

The City of Kelowna needed to take proactive measures to help protect this population from such incidents and improve the city's emergency services response times. In the event of any incident, the organization wanted a reliable system that would provide the information and evidence they needed to react immediately and investigate thoroughly.



Solutions

To tackle these challenges, the City of Kelowna turned to Motorola Solutions' Avigilon, specifically the Avigilon Unity technology suite.

This includes 33 AI-powered security cameras, including the H5A Multisensor, Bullet and Thermal cameras. Each of these cameras is powered by built-in video analytics – helping security teams stay a step ahead of potential threats. This AI technology improves threat response times by instantly alerting operators of atypical activity.

In addition to the camera procurement, the City of Kelowna selected the easy-to-use on-premise Avigilon Unity Video video management software (VMS). Unity Video is designed to optimize the way security professionals manage and interact with live and recorded video from their cameras. Its Focus of Attention interface enables operators to see at a glance what is happening across their site and effectively triage and respond to events.





The benefits

A powerful first line of defense

To help protect the Mill Creek Flood Protection site, the City of Kelowna installed Avigilon's security cameras. These cameras have enhanced the City security operations team's situational awareness to the point that they are instantly alerted to potential threats via Avigilon Unity Video VMS.

Thanks to AI-powered video analytics, featuring Unusual Activity Detection and loitering, the team can accurately detect vandals and intruders 24/7 and dispatch a response unit to the site, helping to reduce criminal activity. Avigilon's cameras have also helped protect the equipment left overnight by contractors working at the site and ward off the potential for theft.

The Avigilon Unity solution has proven to be incredibly effective in deterring criminal activity. There have been no reported incidents at the site since the vandalism episode that caused a three-month site outage in 2022.

In addition to helping to protect the critical infrastructure site, the high-resolution cameras have come in handy to monitor stream levels in the river with clear video. With this extra information, the City of Kelowna can understand the risk of potential flooding during inclement weather.



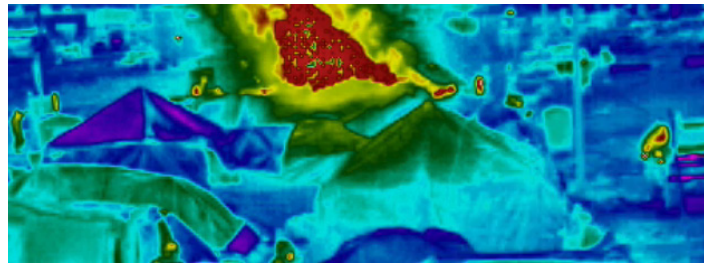
A safer community

At the Rail Trail Shelter, the City of Kelowna installed the H5A Multisensor and Thermal cameras to help safeguard the displaced population camped out there. The H5A Multisensor camera can do the job of multiple cameras. With up to 360-degree views combined with AI-powered video analytics, this camera can observe the entire encampment site in all lighting conditions to help protect people and their property.

The solution proved its worth during one late-night incident where a vehicle burst through the encampment site and ran over two tents, which led to a camper being seriously injured. The H5A Multisensor was able to capture sharp footage of the event in the dark, which proved critical in helping the security operations team and law enforcement understand what happened and identify the vehicle and driver responsible.

With the H5A Thermal camera, the security operations team can see beyond what's visible to a regular camera's lens. Using its heat-sensing technology and radiometric capabilities, the camera can alert operators to overheating objects, including potential indications of fires, inside the tents.

With this early proactive detection, the City of Kelowna can dispatch first responders to the site to extinguish the threat. Evidence for its success can be seen in the response times to such incidents. On average, it now takes four minutes for first responders to arrive on the scene after receiving the alert, compared to 15 minutes before installing the Avigilon Unity solution.



To help safeguard those at the Rail Trail site, we have to respond to threats quickly. Our Avigilon Unity solution helps us do that. Our emergency response time to incidents at the site was 15 minutes. Now it's just four minutes. That's the difference that can help save lives.

– Alan Budde, Security and Business Continuity Manager, City of Kelowna



Conclusion

With enhanced situational awareness of its critical infrastructure and displaced population, the City of Kelowna team can better safeguard its people and property. Working closely with first responders has helped the partnership between the different departments to grow from strength to strength and enabled the improvement of safety and security.

Looking ahead, the City of Kelowna continues to seek new ways in which Motorola Solutions' Avigilon can support its efforts to help build a city of the future. Whether that's improving city security and protecting critical infrastructure to safeguarding the vulnerable and improving criminal investigations, the City knows it has a reliable and trusted partner in Motorola Solutions to help them.



Whenever we've had a question about the system or required help to optimize our video security, the Avigilon team has been great. With them by our side, the City of Kelowna is better placed to provide a safer city for our people.

– Alan Budde, Security and Business Continuity Manager, City of Kelowna

To learn more, visit:
www.avigilon.com



Motorola Solutions, Inc. 500 West Monroe Street, Chicago, IL 60661 U.S.A. motorolasolutions.com

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