

Case study | March 2021

How one progressive municipality uses video intelligence to create a better place to live, reside, and work.

The role video surveillance has played in the creation and promotion of this smart city.



Industry	Founded	Adopted Smart City roadmap	Number of residents
Municipality	1838	2016	143,000

Stavanger municipality

Along the West coast of Norway resides the fourth largest city in the country, Stavanger. A city known for the oil and gas industry that brought wealth to the country will soon be known for its innovative movement towards becoming a smart city. A smart city is one in which the authorities deploy new technologies to collect data in order to create a better place for the citizens to live and work. The integration of physical devices, information and communication technology helps to refine the efficiency of operation of the city and the services it provides. Some of these services include transportation systems, utilities, crime detection, and public buildings. According to their smart city roadmap, the goals for Stavanger included the ability to be agile in dealing with unforeseen societal challenges, growing new business opportunities, developing more efficient services for its citizens, and contributing to sustainable development while reducing greenhouse gas emissions. While this is not a municipal plan, the region of Stavanger is implementing these solutions with the ambition that it will encourage smart growth throughout the municipality.

As part of this initiative, Stavanger decided to update its surveillance system. In their search, the municipality came across a modern system that would fit within their smart framework.

The challenges

The city of Stavanger wanted to gain greater intelligence with their surveillance system that would integrate seamlessly with other technologies. Over the years, they had invested in around 700 cameras and over 70 servers to support them. Each server at each location had to be configured separately to detect and record objects. Due to many natural phenomena such as rain, snow, or wind, the technicians were forced to adjust the cameras and reconfigure the servers to account for unforeseen or new events. Additionally, cameras would often continue to record for hours at a time, not simply when an event occured, making it challenging to locate the time of a particular incident. The small IT team of the municipality found the process time-consuming, tedious, and unsustainable.

Whenever a specific event, person, or item had to be investigated, the town was requested to provide video surveillance footage The older system was often triggered by such minor events as a rainstorm, leaving hours of footage to comb through during which a more relevant event would occur. The operators would often abandon the search because of the effort needed to locate and capture it for sharing with the appropriate parties.

The solution

Products used





5 A3000



In partnership with



In replacing their video security system, Stavanger created a list of items defined by needs and wants to find the best supplier. Some of the needed items included fixed pricing for future upgrades and licensing, the ability to run on the Linux operating system, ONVIF auto-configuration, area search for events, smart integrations with third-party cameras, and auto-adjustment on streaming quality for low bandwidth. Some of the wanted items included web or cloud connection, object detection, LDAP and AD integration, and the ability to export multiple encrypted videos for forensic investigations. Many companies could not match up to the proposed list. However, Ava, with its Ava Aware video management system, became the clear winner. The platform stood out by its ability to integrate with other emerging intelligent building technologies that the city of Stavanger was planning to implement.

With Ava, the municipality of Stavanger got precisely what they were looking for and gained additional insights they were not expecting. Instead of the time-consuming work of installing, configuring, and maintaining the servers at each separate location, the security appliances were all brought to one central location, being reduced from 70 to a mere five. Each server can connect up to 200 cameras and no longer requires extensive maintenance.



Fewer servers with wider visibility

With the cloud-connected Ava Aware VMS, Stavanger was now able to locate its security system centrally. It was no longer necessary to attend to each server in each separate location.



Efficient investigations with Smart Search

Searching for past incidents is more accurate and faster. With the ability to search for events, people, objects, and similarities, Stavanger's operators locate incidents in a matter of minutes across multiple cameras.



Integrations allow for the growth of a Smart City

Ava integrates easily with third-party systems and sensors such as access control and temperature regulation solutions, important when in the process to create more sustainable solutions. The growth and connection between technologies allow Stavanger to further its innovative agenda.

The results

With Ava Aware, the municipality of Stavanger now has a centralized security system that provides video surveillance and integrates with other technologies in the smart grid across the city. Stavanger's IT team reduced the number of servers necessary to serve all the 700+ cameras installed from 70 to 5--a 92.8% reduction. All the servers sit together in a single location with connection to each camera deployed across the city and are managed via a single platform. Investigations into minor incidents can be completed by searching intelligently across all cameras in a matter of minutes. Stavanger's operators can also share the footage easily and quickly with law enforcement or administrators, improving work efficiency. What could take days now only takes minutes. Aware allowed administrators to quickly get up-to-speed with its intuitive user interface without requiring weeks of training to use the platform.

A unique aspect of the Ava video solutions is its ability to integrate with many smart devices and systems. With Stavanger en route to becoming a Smart City, Ava's solution became the obvious choice. It was easy to interconnect with other systems like those for access control, ventilation, occupancy, user management, email communication, third-party cameras to leverage its analytics and create valuable insights. This data is used to better regulate and create new efficiencies for public buildings on behalf of the people living in and visiting Stavanger.



We are now more secure but use less time on security. It is now possible for our team to focus more on our other important tasks because we are confident that Ava Aware will give us reliable results.

- Michael Taoushanis, Smart Building Manager



Ava Security is a global technology company with offices in the UK, Norway, and the USA. It was founded in 2016 to create a better, smarter way to deliver security.

Ava protects people, property, and data anywhere. Innovative companies worldwide use Ava Reveal™ for human-centric data loss protection and Ava Aware Cloud™ for video security and analytics. To learn more about

Ava's smart solutions and how you can enjoy proactive security, visit our website or schedule a demo with a member of our sales team at sales@avasecurity.com.

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