

City of Venice

AVIGILON



Challenge

One of Italy's most scenic cities needed to deploy an advanced HD video surveillance solution that could provide safety for its residents and tourists, protect historic buildings and landmarks from vandalism, and meet the city's multiple regulations.

Solution

Security personnel for the City of Venice manage their HD video surveillance system from the city's police telecommunications and video surveillance operations center that spans two rooms and has a total of 12 full HD 55-inch monitors installed on the wall. Additional client control centers are located in an inter-police force center in the Piazza San Marco, in the provincial operations center of the Carabinieri of Venice, and in the state police of Venice operations center. The City of Venice uses the Avigilon Control Center (ACC) Enterprise software with High Definition Stream Management (HDSM)™. This is the core of the central recording system, located at the city of Venice data center, managed by Venis, an information technology company based in the city. Avigilon 16 MP and 8 MP HD Pro cameras were installed to protect three important sites in Venice: Piazza Ferretto (the main square in Mestre), Piazza San Marco, and the Rialto Bridge. In addition, all video feeds from existing analogue cameras are converted to HD using Avigilon encoders. The city also uses Avigilon Network Video Recorders (NVRs) to store a minimum of seven days of continuous surveillance footage. The entire video surveillance network is based on an MPLS (Multiprotocol Label Switching) fiber optic infrastructure, built by Venis and owned by the City of Venice.

Benefits to the City of Venice

- Protect residents, tourists and historic architecture
- Save on staffing costs
- Strengthen relationships with state police forces

Benefits of the Avigilon Solution

- Faster search times
- Provide indisputable evidence for incidents
- High-quality image detail

Market: City Surveillance

Location: Italy

Partner: Venis SRL

Featured Products



ACC Software



8 & 16 MP
HD Pro Camera



Network Video Recorder



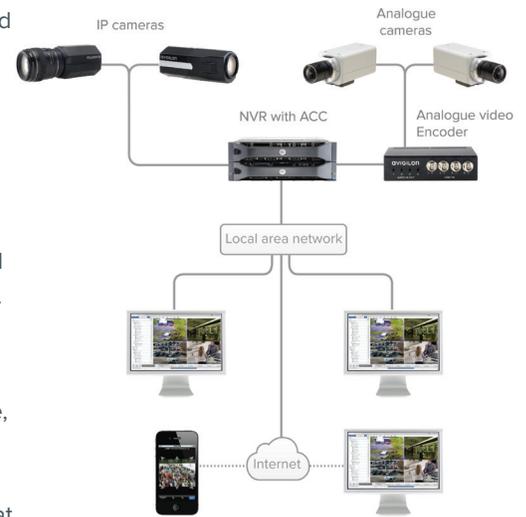
Analogue Video Encoder



The City of Venice Chooses Avigilon HD Video Surveillance System to Protect City's Residents, Visitors and Historic Architecture

With its stunning architecture, canals and bridges, the City of Venice is universally considered to be one of the most beautiful cities in the world, attracting over 50,000 tourists per day. Located in Northeastern Italy, there are 118 small islands that are separated by canals and connected bridges. The City of Venice includes island and onshore territories and extends across the two distinct centers of Venice (on the Venice lagoon) and Mestre (onshore). Because of its unique landscape and artistic heritage, there are logistical problems associated with controlling the area. In a city like Venice, it is not only important to ensure the safety of its residents and tourists, but is also critical that the city secures its historic and world famous buildings. In the past, the Rialto Bridge had been vandalized by graffiti artists.

After years of relying on an outdated, analogue surveillance system, the city was ready to switch to a sophisticated, IP-based video solution that has an open platform. "The existing video surveillance system comprised of a city-owned system of approximately 60 analogue, low-resolution cameras which were very hard to analyze," said Luciano Marini, Police Commander for the City of Venice, who also spoke of problems with the previous system's software and NVRs. "The video recording apparatus experienced frequent malfunctions that caused the partial loss of video feeds making it difficult to provide evidence in situations." With the assistance of their security systems partner Venis, the City of Venice chose Avigilon because of the image quality and detail provided by the Avigilon cameras, and the efficient storage capabilities of the intuitive ACC software. Avigilon was also chosen because it is the only manufacturer capable of providing high-resolution cameras with a wide choice of lenses. "Other producers did not have comparable solutions in terms of resolution, nor did they offer the most suitable choice of lens for the type of frame," said Commander Marini.



Superior Image Quality

“The use of high resolution cameras, like the 16 MP ones, gives us highly detailed images that can also be displayed while analyzing the recordings.”

- **Luciano Marini**, Police Commander for the City of Venice

In the Piazza San Marco, the two Avigilon 16 MP cameras were installed in St. Mark's Campanile, hidden inside the arcade. One camera provides coverage of the Piazza in the direction of the jetty on the San Marco dock and the other in the direction of the Ala Napoleonica (Napoleonic Wing) of the Correr Museum. "The use of high resolution cameras, like the 16 MP ones, gives us highly detailed images that can also be displayed while analyzing the recordings," said Commander Marini, who states the image quality has been helpful to the police in solving crimes. "To obtain the same result, we would have had to install more cameras on neighboring monuments, with all the complications involved." In the past, the city was forced to monitor key, high-traffic areas or areas subject to vandalism using multiple analogue cameras. "Using multiple cameras, it was easy to miss significant frames because of their position or being out of focus," Commander Marini concludes. "The high-resolution fixed cameras, on the other hand, don't pose this problem: they are always in the correct position and they offer a high level of detail."



Versatile and Scalable Solution

As a result of the Avigilon HD system's open platform, the City of Venice has been able to efficiently scale up their system in the last few years. With the assistance of Avigilon encoders, officials have been able to integrate existing analogue cameras and can now seamlessly manage all cameras under a single platform. The advanced search capabilities of the Avigilon Control Center (ACC) software have enabled officials to locate events in a fraction of the time of their previous system. "We find the ACC software to be very simple to use and it has helped us be a lot more efficient with our searches," said Commander Marini, who is also impressed with the software's zooming capabilities. "The ability to display different parts of the same image with various zoom levels, and get those images in HD while continuously recording the entire frame is incredible."



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- **Luciano Marini**, Police Commander for the City of Venice

Effective Crime Fighting Tool

Identifying perpetrators of vandalism or crime by image analysis has been a key advantage of installing the Avigilon HD system. "The Avigilon system has on many occasions been a valuable aide to research operations, including for investigative purposes," Commander Marini said. The high-resolution images have been beneficial in providing indisputable evidence for the city's police force. On top of the technical capabilities of the Avigilon HD solution, security personnel at the City of Venice also found the system to have an excellent price to performance ratio. "The benefits are seen on a daily basis," concluded Commander Marini. "For example, in the field of fighting unlicensed trading in public areas, we now save on manpower. Previously we had to verify all reports of the presence of illegal traders but now we can constantly monitor the affected areas and intervene with certainty."