

Cutting-edge IP video surveillance technologies provides a tangible response for food defense at S.F.C agricultural cooperative.

Axis and partners help member of the Melinda consortium to create a safe environment for apple storage and protect against theft, vandalism or food contamination.



Organization:
Campodenno Fruit Growers
Cooperative (S.F.C.) -
Melinda Consortium

Location:
Campodenno, Italy

Industry segment:
Industrial

Application:
Safety and security, access
control

Axis partners:
Axitea, Milestone,
TechnoAware

Mission

The Melinda Consortium has always guaranteed consumers product safety and homogeneity through technical choices of an agronomic nature, harvesting and preservation methods, and the selection and packing standards rigorously observed in each phase of the production process. The apple must thus be protected, not just from theft, but also from vandalism or other actions that could damage the quality and compromise the brand's reputation.

Solution

The solution proposed by Axis Communications and its partners Axitea, Milestone and TechnoAware integrates IP cameras, access control systems and sensors with video management software (VMS) and a video analysis system, with operations center supervision, to ensure control of the various areas in all weather and lighting conditions and to provide prompt and appropriate responses to any type of event.

Result

The system has allowed keeping the Melinda Consortium S.F.C. storage site under control and ensuring the quality of the final product, a problem of which companies working in the food & beverage sector are increasingly aware. Thanks to the solution adopted, S.F.C. has been able to protect its product not only from potential malicious activity, but also from accidents, which could damage the quality and also have negative for the Melinda brand effects in terms of reputation.



"The whole supply chain must be protected, not just from malicious actions, but also accidents that might prejudice the quality of our products and even damage our brand's reputation". Tiziano Menapace, manager of the Melinda Consortium S.F.C. facility where part of these renowned apples are stored, has clear ideas when speaking about the decision of S.F.C. to equip itself for the first time with an advanced and intelligent IP video surveillance system capable of ensuring the safety of the entire food chain and consequently of the final product.

S.F.C. is a cooperative and a member of the Melinda Consortium, which unites sixteen agricultural cooperatives associated to represent around 4,000 families of fruit growers. The Melinda Consortium handles the organization and management of all activities after the apples have been harvested in the Val di Non and Val di Sole valleys (storage, cold storage, selection, packing, shipping, promotion, sales, etc.) for an approximate annual apple production of 440,000 tons. A figure that helps understand the importance of ensuring the highest standards of safety and homogeneity for the apples produced, at every stage, from the trees on which they grow right up to the final consumer.

One of the critical points of this supply chain, and one of the most sensitive to monitor, is "storage", namely the sites where the apples are conserved awaiting delivery, which are normally located outside population centers, often in the open country, in isolated and poorly lit locations. In the past, bins (the plastic crates used for holding harvested apples) had been set on fire and stolen from storage depots, causing damage not only to the product, but also to the environment. The cooperative therefore had to find a suitable solution to safeguard the quality of the apples and solve potential damage to its business.

To achieve these food safety objectives, S.F.C. decided to rely on the advice of Axis Communications and its partners Axitea, Milestone and TechnoAware to develop an innovative Food Defense solution capable of ensuring detailed surveillance and which integrates Axis fixed dome cameras with Milestone XProtect® video management software (VMS) and a video analysis system with TechnoAware software installable on board the cameras, with supervision from the Axitea operation center, to ensure control of the various areas in all weather and lighting conditions.

In order to monitor isolated sites like these, often spread out and with lighting-related problems, Axis proposed technologies with perimeter control functions that allow using a single video surveillance system, exploiting the installed hardware with video analytics capable of checking attempts at tampering or unauthorized entry in real time. The tendency is to increasingly provide integrated systems, where access control and audio devices are added to the cameras, as confirmed by Maurizio Tondi, Chief Technology Officer at Axitea: "Advanced video network technology can really have a strategic and proactive role in Food Defense. By using network cameras as sensors capable of operating in an integrated manner with other intelligent devices, in low-light conditions and with the aid of heat and thermographic technologies in cases of total darkness, to which services offered by a global security provider such as Axitea and its foremost technological partners are added, it is possible to control every phase of the production process, and critical situations and aspects in particular".

Going from outside to inside a storage site such as the Melinda Consortium S.F.C. one, a further critical aspect is represented by the main entrance, due to the incoming and outgoing flows of people and vehicles. Situations that are difficult to control if not carried out using clear procedures and with the aid of adequate technologies, not only because of the number of people, but also their diversity: employees, suppliers and customers, each with different means and at different times. It is also important to take into consideration the extremely sensitive area surrounding the spaces where the containers of the raw material are located, which if not provided with adequate video surveillance solutions, could be subject to tampering or vandalism.



To protect this space, the proposed solution relies on two key elements for the video surveillance of such a critical zone: light compensation in cases of darkness and image definition. The installed solution can count on twenty-one AXIS P1435-E fixed cameras, with functions such as Lightfinder and WDR - Forensic Capture for excellent image quality even in complex lighting conditions and two AXIS Q6114-E dome cameras, which offer HDTV resolution, 30x optical zoom, and rapid and precise pan/tilt performance for wide-range coverage and remarkable zoom detail. The system is also supported by Milestone video management software and can connect to the Axitea Security Operation Center to reduce false alarms to a minimum and enable a rapid and efficient response in any situation, also thanks to the call-out of Axitea security guards in case of need.

"With the installation of this video surveillance system, we believe we have provided a tangible response to counter any deliberate acts of contaminating apples, which is difficult to identify and even more complicated to prevent," stated Tiziano Menapace, Melinda Consortium S.F.C. plant manager.

"We believe that protecting the production sites (factories, storage depots, etc.) with the aid of cutting-edge technologies has become a priority for food businesses such as ours, and so we have chosen the best technologies available on the market," he stated.

In conclusion, the implemented solution was particularly appreciated by S.F.C. thanks to the high image quality of the Axis cameras and the contribution provided by Axis partners Axitea, Milestone and Technoware, which allows controlling the storage sites and unauthorized access in the areas in a simple and proactive manner. All of this is made possible by systems that make different components interoperable with each other, such as the open platform for video management that perfectly integrates with Axis IP products. A scalable video surveillance system for the future, ready to comply with regulations related to food defense and able to safeguard the quality of the final product.

"Thanks to the new security system, we are able to assure the safety of the final product throughout the supply chain, especially at the more sensitive points, such as the storage sites. We particularly appreciated the high image quality and zoom of cameras able to monitor the sites in all weather and lighting conditions."

Tiziano Menapace, Melinda Consortium S.F.C. plant manager.



"We have a fruitful collaboration with Axis going back many years and so the choice of products to use almost naturally fell on their cameras due to the wide range of models in their catalog, their helpfulness in the design and implementation phases of the system and the performance of the cameras, which work great with the different software installed on board."

Maurizio Tondi, Axitea Chief Technology Officer.

About Axis Communications

Axis offers intelligent security solutions that enable a smarter, safer world. As the market leader in network video, Axis is driving the industry by continually launching innovative network products based on an open platform - delivering high value to customers through a global partner network. Axis has long-term relationships with partners and provides them with knowledge and ground-breaking network products in existing and new markets.

Axis has more than 2,700 dedicated employees in more than 50 countries around the world, supported by a global network of over 90,000 partners. Founded in 1984, Axis is a Sweden-based company listed on NASDAQ Stockholm under the ticker AXIS.

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