

## CASE HISTORY

# COSTA CROCIERE S.p.A.

## Aitek for Costa Crociere: a “bubble” of technologies





In these times of pandemic, starting over safely and responsibly means combining a unique and unforgettable holiday experience with the adoption of a strict health protocol. For this reason, all the technological tools capable of guaranteeing a high level of safety both on board the ship and inside the port terminals must be used. Aitek technologies for video surveillance and Digital Signage, already operational inside the Savona cruise terminal - the home port of Costa Crociere – have proved to be fundamental both in detecting any critical situations within the terminal and in providing customers with updated service information.

### Digital Signage to communicate with customers

The great opportunities offered by Digital Signage, the form of communication based on the dissemination of multimedia on monitors installed in public spaces, can be exploited not only to broadcast advertising or interact with customers through engaging communication, but also to provide information on behavioral rules regarding the fight against Covid-19.

It is no coincidence that the Digital Signage network created by Aitek within the Costa Crociere terminal proved to be an effective tool for communicating and interacting with customers. This solution is the revamping of a previous system and was designed to maintain the previously installed infrastructure and limit investments, while achieving excellent results in terms of network quality and efficiency.

The content management and the scheduling of their distribution to the 50 monitors installed inside the terminal is possible thanks to TVIP-Director, the control application developed by Aitek for the management of Digital Signage networks.





TVIP-Director, installed on HPE ProLiant DL380 servers to offer maximum power, allows system administrators to manage the entire network (players and monitors) in a fully independent way, modify player configurations and add new ones in case of network extensions.

The TVIP-Director interface is a true content manager equipped with all the editing and programming tools required to create an evolved Digital Signage network: from multimedia ingestion (videos, images, slides, web contents, text content, RSS) to the creation of custom layouts, playlists and channels.

TVIP-Director is a reliable and easy-to-use tool allowing to securely distribute updated information and scheduled content based on the place and time of broadcasting.

Flexibility is one of the strengths of TVIP: each monitor can display different content based on the location within the terminal and the occurrence of certain situations. Some examples? Messages can be displayed in case of queues at baggage control, to inform about the opening of a new check-in desk or to modify the routes to be followed inside the terminal during boarding / disembarking operations.







Similarly, specific predefined playlists can be created according to scenarios occurring in the terminal: in fact, the displayed information can be different when two ships are docked at the same time, in order to facilitate orientation within the terminal and ensure compliance with the regulations regarding the fight against Covid-19.

### Advanced and intelligent video security

Video surveillance is an essential tool for a cruise terminal. The constant monitoring of perimeter areas, access gates, check-in areas and all the key points allows operators to detect any situation that does not comply with the procedures against the spread of Covid-19 such as gatherings, unauthorized access to restricted areas, risky behavior and much more.

For this reason, Costa Crociere has chosen Aitek's AiVu video security platform for monitoring the 46,000 square meters of its terminal: this solution combines Aitek's experience in the design and development of complex video security applications with the highest quality and reliability of the employed hardware components.

In order to provide maximum performance in terms of quality and reliability, the entire video surveillance system supplied to Costa Crociere is based on Hewlett Packard Enterprise-certified hardware.

From switches for connecting cameras to HPE ProLiant DL380 servers hosting the AiVu-VMS video management software and the AiVu-NVR video recording software, the result is a state-of-the-art technological solution ideal for mission-critical applications.

The management of the system, consisting of 50+ state-of-the-art cameras placed in the key points of the terminal, is entrusted to the AiVu-VMS software, capable of guaranteeing full compliance with regulatory requirements, but also capable of providing effective responses to any security need.

The AiVu-VMS interface allows users to display images in HD, perform pan-tilt-zoom operations to detect any detail with maximum precision, configure camera patrols for the cyclical display of predefined presets, display images from multiple cameras simultaneously access and download recordings.

AiVu-VMS improves the user experience by supporting static maps and on-line mapping services to provide an overview of the monitored video sites.





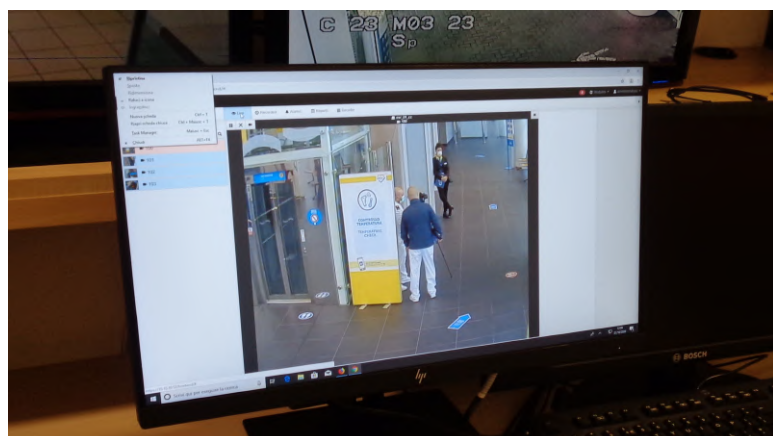
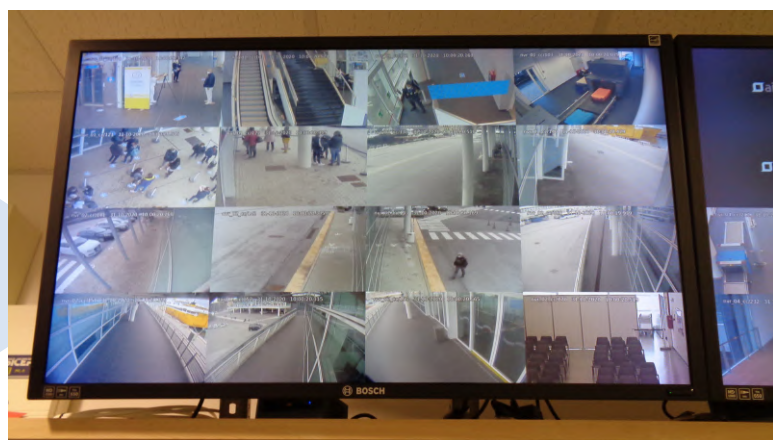
In addition to video browsing features, an internal diagnostic system allows the real-time detection of faults and anomalies of video surveillance devices, facilitating the planning of maintenance.

AiVu-VMS provides maximum reliability in terms of cyber security: video cameras are confined to a dedicated network preventing any outside connection, while the embedded operating system encrypts the content of the disk on which software is stored, ensuring data integrity and preventing outside access, tampering or installation of malware.

To ensure the highest protection of images, live and recorded streams are encrypted and can only be viewed by users with their corresponding credentials.

## Enter Artificial Intelligence

A significant evolution of the video security system is the integration with an innovative video analytics module for detecting social distance. Among the wide range of video analytics features Aitek offers in its catalogue, a specific algorithm processes video streams from security cameras to compute the distance between individuals in a monitored area using metadata from Bosch cameras installed at the Costa Crociere terminal.







Taking advantage of the processing of live images carried out on board Bosch cameras, the algorithm is capable of automatically detecting people in the monitored area and computing the real-world distance between them, generating an alarm whenever two or more people are too close to each other for too much time. Bosch cameras make it possible to track people within the monitored scene and send their position as metadata.

Distance and time thresholds can be configured to prevent false alarms or ignore short-term events, such as when people do not maintain a proper distance for just a few instants because their paths momentarily cross.

Thanks to the great flexibility of the video security solution designed for Costa Crociere, the module for detecting social distancing, already configured and fully operational, represents an opportunity to update any video surveillance system with a key functionality that combines the maximum reliability of detection with full respect for privacy, since the solution does not carry out any personal recognition.



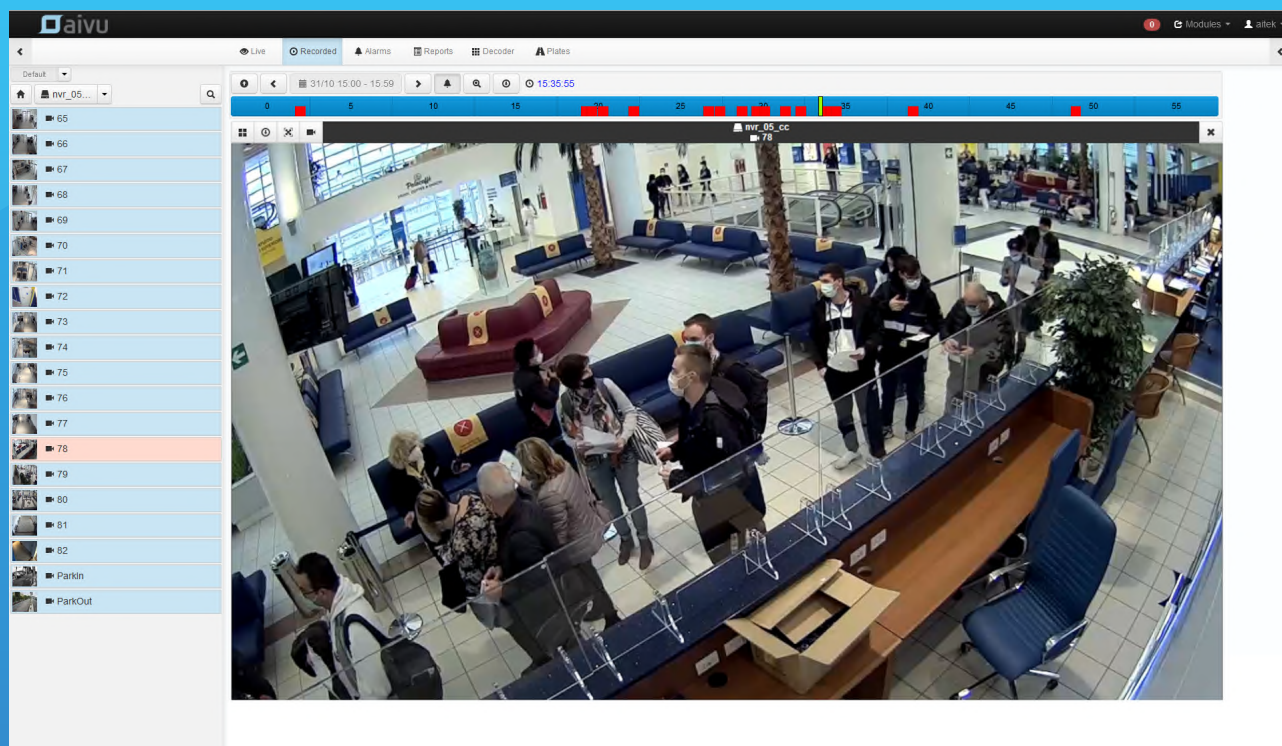


## Safe reception with Aitek technologies

Video surveillance, digital signage, video analytics for social distancing: Costa Crociere has equipped its cruise terminal in Savona with the best Aitek technologies for safety and communication with customers.

A considerable effort that supports the Costa Safety Protocol, a protocol to protect customers health that integrates new operating procedures adapted to the needs of responding to the COVID-19 situation, in compliance with national and international health regulations, both on board and ashore.

A strong signal to start over in total safety and return to offering guests wonderful travel experiences, consistent with the excellence of the Costa Crociere style.



**IMAGES OF PAGES 2-6: the Digital Signage network within the Costa Crociere cruise terminal in Savona: 50+ monitors installed at the accesses to the boarding terminals, the check points for passenger documents, the welcome desks and the waiting areas managed through the Aitek TVIP platform.**

**PAGES 5-6: the control room of the AiVu video surveillance system, with monitors connected to decoders for the simultaneous display of live streams from multiple cameras.**

**ABOVE: the interface of the AiVu-VMS video management system for the display of live streams, recordings and alarms in case of non-compliance with social distancing within the monitored areas, generated by a video analytics algorithm developed by Aitek.**



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