

AIRPORT SECURITY AND OPERATIONS

POWERFUL SURVEILLANCE SOLUTIONS FOR AIRPORT SECURITY
AND OPERATIONS



CathexisVision[®]
IP Video Management Solutions



Cathexis Technologies provides Video Surveillance Management Software solutions that meet the demands of the most challenging security applications around the world.

Through its flagship open platform IP Video Management Software Suite, CathexisVision, comes a feature-rich security and infrastructure management tool that satisfies all security and operational management requirements.



International airports represent so much more than just stopover points that facilitate transportation from point A to B. Visiting an airport today includes a full dining, shopping and entertainment experience. Airport security has also evolved to the point where local and international regulations for security must meet the comfort and needs of passengers and provide optimal operational efficiency for airport vendors.

Enhanced surveillance technologies such as the powerful open platform Video Management Systems (VMS) provided by Cathexis, have become a critical component for airport security and operations.

CathexisVision Features Summary

- Video Analytics
- Adjacent Camera Mapping
- Advanced Video Search
- Alarm Management
- Automatic Number Plate Recognition (ANPR)
- Diagnostics
- Event and Action Management
- Failover
- Health Monitoring
- IP Camera Support
- Third Party Systems Integration
- Upgradable Architecture
- Video Wall
- Access Rights Management
- Highly Secure against cyber threats



Going Beyond Surveillance for Airport Security and Operations

Airport security management must continuously review security procedures to meet constantly evolving new threats and challenges. Advances in software and systems integration provide seamless operations that go beyond security management. CathexisVision plays a key role in leveraging surveillance for security and operational management. Some of the key applications for airports include:

Perimeter Protection

Due to the location of some of the world's largest airports, protecting the perimeter presents several challenges. These perimeters are often no more than simple walls and fences, which are extensive in size, irregular in shape, and often located in remote areas with poor lighting and visibility. This makes them easy targets for security breaches.

CathexisVision provides a comprehensive solution, which works hand in hand with your selected "best-of-breed" visible light or Thermal IP cameras, which are setup on the perimeter of the airport.

CathexisVision is easily integrated with other perimeter protection security systems (like microwave, fibre and radar) to provide a central security hub for control room operators to manage the entire perimeter. The perimeter security solution keeps unauthorised individuals away from runways, taxiways, aircraft and other airport infrastructure.

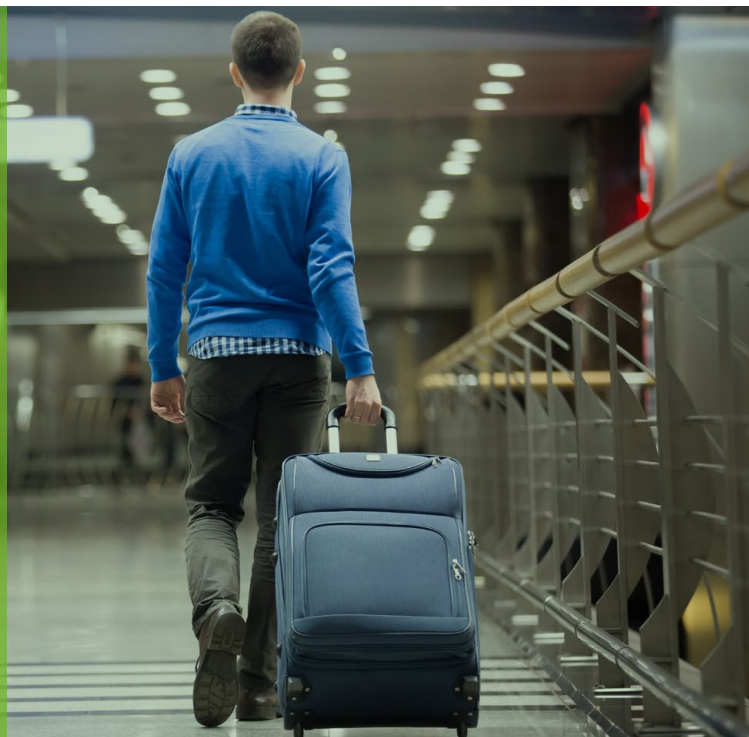
Integration with specialised Video Analytics devices provides triggers to the system, which enables user-defined actions depending on the specific trigger received. The capability to integrate various third-party systems is enhanced by predetermined actions upon information received from various systems and the association of specific actions for events.

Perimeter Protection Key Features:

- Video Analytics
- Third Party System Integration
- Sophisticated control room management
- Automated switching of video wall

Baggage Handling Systems

From airport security checkpoints to the tarmac and concealed baggage handling areas, the loss or theft of baggage and other high-value items not only poses a threat to passengers, but also airport companies, who suffer from brand and reputational damage as a result of such incidents.



CathexisVision provides an ideal platform for the integration of traditional surveillance security to help mitigate the risk of lost baggage by integrating surveillance technology with VMS to monitor and respond to alarms triggered.

Video Analytics play a key role in notifying control room of any abnormal or suspicious activity, so that immediate and predetermined actions can be taken.

Advanced Video Search Features offer a sophisticated suite of tools that dramatically speed up the process of viewing pre-recorded footage by eliminating the need to review irrelevant footage. Adjacent Camera Mapping offers simple and accurate camera selection, streamlining the process to follow people or specific incidents taking place on site, by eliminating the need to remember camera names and locations in a crisis.

Baggage Handling Systems Key Features:

- Video Analytics
- Adjacent Camera Mapping
- Intercom systems integration
- Integration with process control systems

Parking

Airports are full of security restricted areas, including garages and parking lots. Airport security must have the capability to identify unauthorised entry, vehicle tracking and prevent parking payment fraud.



CathexisVision reduces risk and improves airport security through its Video Analytics and Automatic Number Plate Recognition (ANPR) Features. ANPR software allows for the identification and capturing of number plate information via cameras and databases.

This provides 24/7 access to users who can compare images captured to blacklists or whitelists and take immediate appropriate action against these comparisons. The ANPR feature is well-suited to any parking/access control application with its proven high-performance capability that can be used in over 200 countries worldwide.

Parking Key Features:

- Video Analytics
- Integration with Parking Management control systems
- ANPR (Automatic Number Plate Recognition)
- Intercom integration

Retail and Vendor Management

Retail operations at airports come with a unique set of challenges, which are now easier to manage with world-class VMS features. Surveillance software provides a dual purpose through security and operational efficiency.



Cathexis offers a range of Video Analytics, which are specific to retail and restaurant management, including: Smart Video Motion Detection, Queue Length Analysis, Traffic Direction, Abandoned Object Analysis, Post Object Search. The system also integrates with several specialised analytics devices that provide triggers to the system and enable it to take user defined actions depending on the specific trigger received.

The People Counting solution uses video counting technology to monitor the number of people coming in and out of the store. This provides valuable information for analysing shopping trends; conversion rates and people flow.

The Point of Sale (POS) integration provides a full database of all POS transactions and associated video footage. A user-friendly interface allows easy viewing of cameras associated with specific tills. With Intelligent Data Mining, a database search engine allows users to find specific transactions or groups of transactions easily, and to play back the transactions synchronised with the associated video footage.

Retail and Vendor Management Key Features:

- Video Analytics
- Point of Sale
- People Counting
- Third Party Systems Integration

Sophisticated Multi-Area control room management

The CathexisVision system provides a sophisticated control room environment to facilitate simultaneous management of multiple areas within the airport, thereby creating an extremely effective and efficient solution.



The event and action management capability that increases the effectiveness and efficiency of the management environment. This enables the system to notify the user of certain activities, and to automatically take actions to assist the operators in making decisions.

Events or alarms can be triggered from many different sources, including:

- Video Analytics (either server or camera based)
- Physical inputs
- Triggers from 3rd party systems (like Fire Panels, Intrusion Panels, Access control systems etc.)
- Technical alarms (e.g camera failures, failover)
- User triggers

Actions can then be taken depending on the triggers received. These actions may include:

- Switching a camera to a selected area on the video wall
- Moving a PTZ camera to a selected zone
- Playing tones in the control room or elsewhere in the facility
- Sending a notification to the control room alarm management client
- Sending an SMS or email to selected recipients
- Switching an output (e.g warning light, siren)
- Controlling a 3rd party system

A full user-managed alarm management facility enables the effective handling of alarms and events and logs all actions taken by operators and allows managers to generate reports for ongoing system optimisation.

The CathexisVision advanced search tools enable operators to quickly and efficiently find the relevant video and data associated with specific event to facilitate immediate response. These features include Activity trails, Motion search, Snap-search, Timeline search and database mining.