



CATHEXIS[®]

CathexisVision[®]

Video Surveillance Management Solutions

The CathexisVision IP Video Management Software suite provides an extensive range of sophisticated solutions to satisfy all security and infrastructure management requirements across a wide variety of market sectors. These sectors include: retail, banking, hospitality, mining, education campuses, residential and commercial estates, manufacturing facilities, healthcare, transport and logistics, city surveillance, and many others.

With a clear emphasis on simplicity, the open architecture enables seamless integration with IP cameras and third-party systems, providing complete optimal solutions and maximum return-on-investment for the widest range of applications.

CathexisVision Standout Software Features, include:

- Open Architecture VMS platform
- Enterprise, Multi-Site Architecture
- Video Analytics
- Automatic License Plate Recognition (ANPR)
- Third-party System Integration
- Sophisticated Command Centre Environment
- Advanced Video Search
- Cyber Protection and Failover Redundancy
- Multiple Language Support



Effective Innovation



IP Camera Support

CathexisVision supports thousands of the most popular brands of IP cameras using both proprietary (MJPEG, H.264, H.265, MxPeg) and ONVIF protocols, via a true “plug and play” interface. Support includes multiple video streams, audio, input/output control, on-camera (Edge) video analytics and recording, as well as 360 and 180-degree fisheye camera de-warping algorithms. Our setup wizards ensure speedy installation of hundreds of cameras on site. In order to ensure that cameras have not been moved from their desired position, we also provide the ability to compare current camera images with previously saved “reference” images using a sophisticated reference image analysis algorithm.



Multi-Server Site Management

CathexisVision Premium provides a true site-based management infrastructure, with multiple recording and viewing servers, cameras, and storage - all managed from a centralised location. The user-friendly graphical interface provides the operator with seamless access to cameras and resources anywhere on or off site.



Enterprise Multi-site Management

CathexisVision is the ideal solution when multiple sites need to be managed from one central location. The site management software provides authentic remote client system management. This includes performing all system functions from set-up to viewing, reviewing and system management, from anywhere across the globe. Compression techniques also provide efficient video streaming across limited bandwidth infrastructures.



Upgradeable Architecture

CathexisVision offers the flexibility to upgrade and expand systems, or add features whenever necessary. If the solution calls for an increase in camera population or an increase in the number of recording servers, the CathexisVision solution is easily upgradeable to meet new or changing demands.



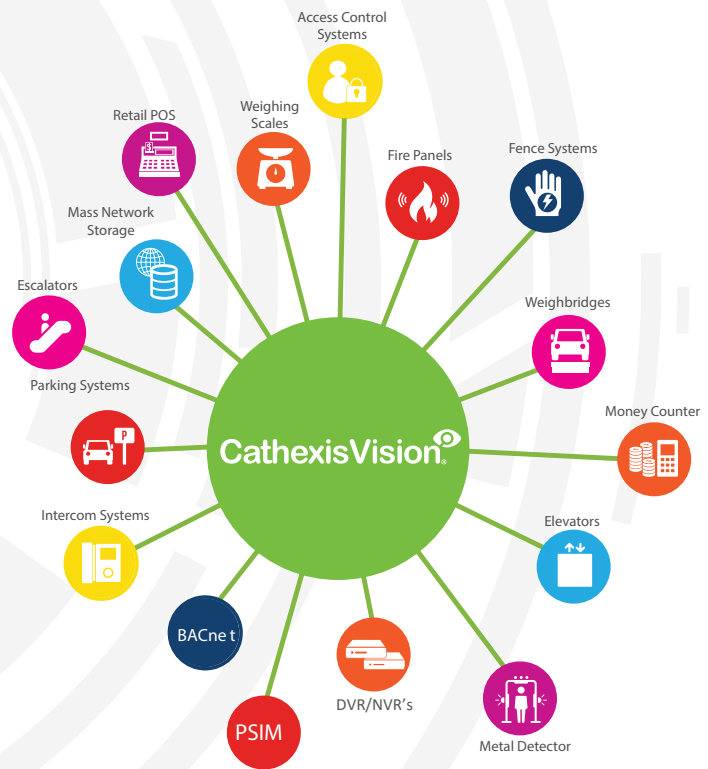
Flexible Storage Solutions

CathexisVision provides complete flexibility when it comes to choosing a storage solution. This includes support for Network Storage systems like NAS and SAN, as well as on-server storage with various RAID configurations and “Edge” storage on selected network cameras. Multiple, user-defined databases, enable clients to maximise storage effectiveness and flexibility. CathexisVision also has capacity to store critical video to more than one database simultaneously for ultimate redundancy.



Third Party Systems Integration

CathexisVision is easily integrated with a wide range of third party systems to provide a powerful single user interface with video verification of events. These third party systems may include: alarm and fire panels, access control, point-of-sale, building and plant management systems, perimeter monitoring equipment, and more. Integration is enhanced by the ability to perform predetermined actions upon specific information received from various systems.



Retail



Banking



Education





Video Wall

The CathexisVision video wall displays video on multiple monitors where operators can intelligently manage video. The camera and sequences layout can be commanded to automatically switch cameras to monitors or panels, upon a specific event. Monitor layouts are controlled via an interactive mimic panel, and it is possible to see cameras on the video wall in review. CathexisVision enables the control room environment to be tailored for bespoke requirements.



Alarm Management

Our Alarm Management software provides a “black-screen” management approach for individual sites that have lots of cameras, or for centralised command centres monitoring multiple sites. In these scenarios, the local or remote site generates alarms that are logged and managed by the Alarm Management software. The software can automatically guide operators to relevant cameras that are associated with the received alarms, enable them to enter comments, and provide alarm-specific procedures for the operators to follow. Comprehensive search and reporting tools are provided to complete the alarm management system.



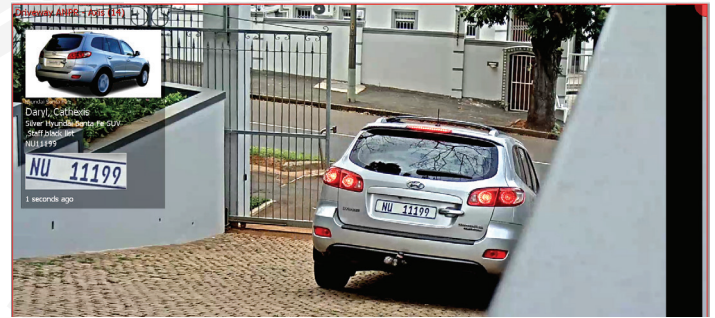
Event And Action Management

CathexisVision software offers intelligent configuration of events as well as the actions that can be initiated in response to these events. Events can be triggered from various inputs, video analytics, or integrated third-party system triggers. Rules-based configuration enables automatic responses associated with these specific events to be performed, including: switching cameras to monitors, sending emails, controlling relay outputs, sending alarms to a control room, playing audio clips and many others.



ANPR (Automatic Number Plate Recognition)

CathexisVision provides an Automatic Number Plate Recognition (ANPR) solution for both low- and high-speed applications. License plates are recognised and stored in a database with associated video footage. These license plates can be compared to blacklists or whitelists in real-time, which provides the ability to take appropriate action against these comparisons. CathexisVision provides the ideal solution for both parking/access control applications or high-speed freeway detection requirements.



Video Analytics

CathexisVision contains a powerful video analytics suite and also has the ability to integrate on-camera (Edge) analytics. Algorithms provided by Cathexis include multi-zone motion detection algorithms, abandoned object detection, loitering, speed, direction, line-crossing and several others. Our “dynamic background” learning algorithms minimise false positives, and our “object classification” algorithms, using Neural Networks, improve decision making and dramatically reduce false alarms by enabling the system to identify specific objects (e.g people, animals, cars). The user-friendly interface allows users to easily configure the algorithms with both live and recorded video footage.



Failover Redundancy

CathexisVision provides complete redundancy by way of its elegant failover feature. This ensures that if any recording or video management server fails on a site, a “failover server” will automatically perform the tasks of the failed server. In addition, when the failed server is replaced, all configuration and recorded footage is automatically ported back to the replacement server. This ensures that the site continues to run seamlessly through the whole process.

Hospitality



Mining



City Surveillance



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Advanced Video Search

Advanced Video Search features are sophisticated tools that dramatically speed up the ability to review recorded video footage. They allow operators to find specific and relevant footage through four highly customisable tools:



Snap Search

Snap Search uses linked snapshots (thumbnails) to enable users to very quickly pinpoint the exact time of a specific incident, even in very busy areas, and play video immediately from that point.



Motion Search

Motion Search will automatically find recorded video footage associated with motion in selected areas. The motion in the selected areas is reflected in the timeline for easy navigation.



Activity Trails

The unique CathexisVision Activity Trails enable users to display an overlay map, showing the latest activity in all areas of the selected camera view, enabling immediate navigation to the selected area of activity.



Bookmarking

This feature enables users to bookmark recorded video from specific cameras at a point-in-time. The user can then add personalised comments to the bookmark, and easily search the bookmark database from the bookmarks window. This enables the user to very quickly find video footage that has been identified for further examination or analysis.



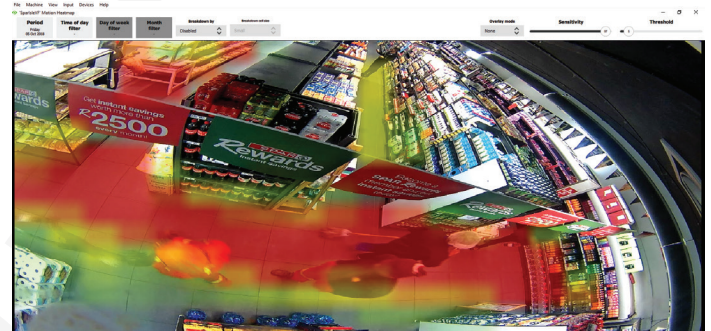
Adjacent Camera Mapping (Suspect Tracking)

The Adjacent Camera Mapping feature adds immense efficiency to the control room environment by enabling operators to immediately switch to adjacent cameras at the click of a button. It also allows the user to display all the cameras that are directly adjacent to the camera being immediately focused on, to keep track of a developing situation. Another major advantage of this feature is that it can be used on both live and recorded camera footage. This feature is designed for large-scale applications where speed and efficiency is vital. It allows operators to maintain accurate viewing capabilities and pinpoint incidents as or before they arise.



Heatmaps

Heatmaps can be applied as overlays to selected cameras for a quick overview of areas of movement within a camera view. The heatmap shows a colour-map overlay onto the video depicting the amount of movement within that camera view. For example, the red areas show maximum movement while a green area demonstrates minimal movement. This is particularly popular in retail environments, where store managers would like to analyse the most popular areas in a specific store.



Access Rights Management

Large sites often require multiple control rooms and tiers of management, which makes it imperative to control the access of the various users. CathexisVision software offers multiple levels of users, each with a unique username and password. Administrators can manage users across the site, or across multiple sites, from a central location.



Cyber Security

Cathexis has always provided ample security measures for data and video security, and with cybersecurity becoming a non-negotiable imperative, CathexisVision offers significantly enhanced levels of protection for users. Apart from the conventional security measures, CathexisVision includes high-level encryption for communication between the various components of the CathexisVision system. This includes secure camera communication protocols, as well as watermarking and encryption applied to any archived video.

Warehousing & Logistics



Healthcare



Transport



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CathexisVision
IP Video Management Solutions





Camera Parameter Cloning (CPC)

The Camera Parameter Cloning feature makes it easy to apply camera settings across multiple cameras. Users can simply copy and paste settings (multiple video streams, resolutions, frame rates, bitrates and others) from one reference camera to as many other cameras required, significantly reducing site setup times.



Setup Wizards

The CathexisVision Setup Wizards are designed to guide users through the setup process for cameras, databases, recording, analytics, events and event actions. This enables a seamless user experience with a significantly decreased probability of error.



Map Interface

The CathexisVision maps feature offers multi-layered, hierarchical, interactive interfaces. This provides representation and control of a site and its resources. These resources include cameras, input/output devices, access control doors, alarm/fire panel points, and more, which are all displayed on a graphical interface. The map also provides the ability to represent, and control, pre-set PTZ dome positions from the GUI, drag-and-drop cameras from the map to selected monitors, and control selected integrated third-party systems.



CatMobile

The Cathexis mobile device applications enable users to remotely view cameras from their mobile devices. CatMobile allows clients to view up to four cameras simultaneously, review recorded footage from selected cameras and control PTZ cameras from the user-interface. The interface also enables users to control physical outputs on the remote site. With CatMobile, users are able to easily connect to multiple sites from any location in the world.



CatObserver (Monitor Recording)

CatObserver is a feature that enables a selected viewing monitor or computer screen, to be configured as a virtual camera so that all the activity viewed on these screens is recorded. The benefits of this feature include easy archiving and access to all the video footage, which an operator has viewed during an incident, without having to archive or access footage from multiple cameras.



Diagnostics

CathexisVision has an extremely powerful diagnostics suite, which provides installers with the tools to analyse the whole system environment, both in real time and historically. The capability to monitor network camera video streaming performance, recording bitrates, live viewing statistics, and network throughput, enables Cathexis partners to easily troubleshoot problems on-site. This provides real intelligence on the technical integrity of the solution.



Health Monitoring

Optimal system performance is always of paramount importance. The Cathexis Health Manager provides real-time analysis of the system and can be configured to send alarms to selected recipients if problems are detected. Camera failures, hard drive analysis, environmental conditions, communication integrity, software errors, and a wide range of other parameters, are monitored to provide peace-of-mind. The software also provides full reporting capability, enabling users to generate system status reports.

Manufacturing



Airports



Housing Estates



Effective Innovation

CathexisVision 2020 Package Comparison

• Feature included ◦ Available with license

Features	LITE Single server package	CORE Single Server product	PROFESSIONAL Medium to large site	PREMIUM WAN/large site
Upgradeable (To Higher Package)	–	•	•	•
CAMERA AND SERVER LIMITS				
Max IP Camera channels Per Site	48	48	150	Unlimited
Max Recording Servers Per Site	1	1	Unlimited	Unlimited
NETWORK CAMERA SUPPORT				
MJPEG, H.264, H.265 and MXPEG and ONVIF Support	•	•	•	•
Multiple Video Streaming (Per Camera)	•	•	•	•
Multicast Support	•	•	•	•
UPnP Support	•	•	•	•
Audio and I/O Support	•	•	•	•
Fisheye De-warping	•	•	•	•
CLIENT CONNECTIONS				
Max Simultaneous Connections (Including Local)	3	7	10	Unlimited
Viewing & Setup Client	•	•	•	•
Mobile Client Support	•	•	•	•
AUDIO				
Audio Recording & Bi-directional	•	•	•	•
VIDEO ANALYTICS				
Basic VMD	•	•	•	•
Cathexis SMART Motion Detection	◦	◦	•	•
Advanced Analytics Suite	◦	◦	◦	◦
Edge Analytics Support	•	•	•	•
Heatmap	•	•	•	•
Object Classification (Neural Networks)	◦	◦	◦	◦
Camera Reference Image Analysis	•	•	•	•
SMART SEARCH				
Snap Search	•	•	•	•
Motion Search	•	•	•	•
Activity Trails	•	•	•	•
Bookmarking	•	•	•	•
ADJACENT CAMERA MAPPING				
Adjacent Camera Mapping	•	•	•	•
STORAGE				
Local Storage (On Recording Server)	•	•	•	•
Network Support	•	•	•	•
Edge Storage	•	•	•	•
EVENT TRIGGERS				
Physical Input Triggers	•	•	•	•
On-Server Analytics Triggers	•	•	•	•
Edge Analytics Triggers	•	•	•	•
Third Party System Event Triggers	◦	◦	◦	◦
Technical Alarm Triggers	•	•	•	•
EVENT ACTIONS				
Record Pre-and Post-events	•	•	•	•
I/O Output Control	•	•	•	•
Send SMS and Email	–	•	•	•
Send Alarm/Event to Alarm Management Gateway	–	•	•	•
Video Wall Control	•	•	•	•
Play Audio Clip	•	•	•	•
PTZ - Move to preset location on event trigger	–	•	•	•
Send Technical Alarms to Alarm Gateway	•	•	•	•
ANPR (AUTOMATIC NUMBER PLATE RECOGNITION)				
Low and High Speed	◦	◦	◦	◦
INTEGRATION				
Third Party Systems Integration	◦	◦	◦	◦
API Integration	•	•	•	•
VIDEO WALL				
Mimic Panel	◦	◦	◦	•
Camera and Layout Tours	◦	◦	◦	•
Automatic Camera and Layout Switching on Events	◦	◦	◦	•
CATOBSERVER (MONITOR RECORDING)				
CatObserver (Monitor Recording)	◦	◦	◦	◦
ALARM GATEWAY INTEGRATION				
Technical Alarms	•	•	•	•
Event Alarms	–	•	•	•
Alarm Escalation and Tracking	•	•	•	•
MAPS				
Interactive Map Support	◦	◦	◦	•
FAILOVER				
Redundant Failover Server/s Support	–	–	◦	◦
REPORTING				
System Health Reports	•	•	•	•
Customizable Management Reports	•	•	•	•
USER MANAGEMENT				
Access Rights Control	•	•	•	•
User Logs	•	•	•	•
Multiple language support	•	•	•	•

Disclaimer: While Cathexis has made every effort to ensure the accuracy of this document, there is no guarantee of accuracy, neither explicit, nor implied. Specifications are subject to change without notice.