CATHEXIS

CatVision Surveillance Solutions

Digital surveillance and beyond

Cathexis's feature rich CatVision I.P Surveillance software suite provides an extensive range of sophisticated surveillance options, tools and functionality to satisfy all security and infrastructure management requirements across a wide variety of market sectors, including retail, banking, mining, tertiary education campuses, residential and commercial estates, manufacturing, healthcare and transport and logistics among many others.

The open architecture enables I.P cameras, recording and viewing servers as well as third party systems suited to a particular application to be integrated seamlessly, thereby providing clients with the best solutions and maximum return on investment.

The suite of four software variants and several licensed add-ons provides the flexibility to tailor endless customised solutions. The software's backward compatibility facilitates the integration of a hybrid of analogue and IP technology, from cameras to servers that makes upgrading easy and cost effective thereby providing clients with future peace-of-mind.

Whether the surveillance requirement is for a single site or a chain of small retail stores or a complex organisation with outlets cross borders and continents or mining operations with thousands of cameras, Cathexis's extensive technical and system design experience will provide the solution backed by ongoing client support.

The multi-server software environment provides the technical integrity to ensure the up-time of the clients operations which is backed by ongoing client support from the Cathexis engineering team.

The range of product features discussed in this document varies on Cathexis products. See the product feature matrix on page 5.

This software can be run on both Windows and Linux operating systems.

CATHEXIS

Holistic security and business solutions

I.P camera support

All Cathexis products are integrated with the most popular brands of I.P cameras with ONVIF and proprietary protocols. Integration includes audio, input/output control, on-camera (Edge) video analytics as well as panoramic camera support. A complete list of integrated cameras can be obtained from our website www.cathexis.co.za.
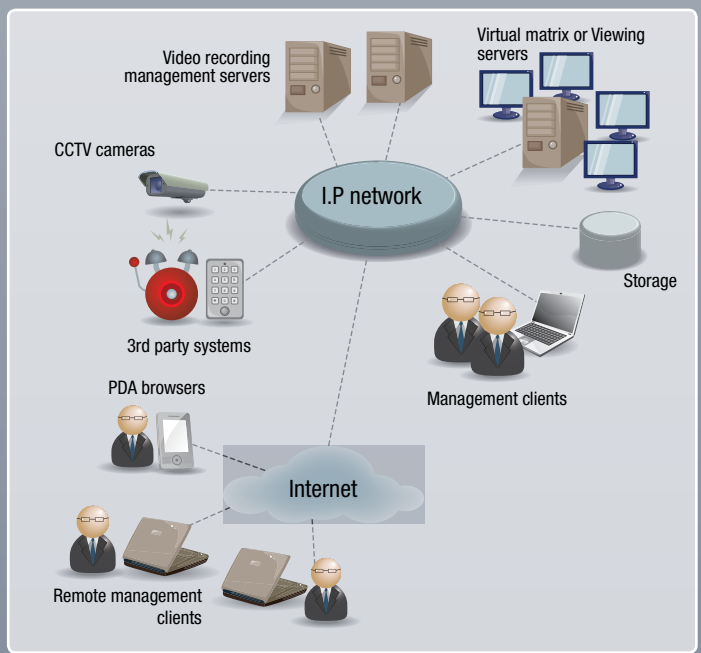
Multi-server site management

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

Off site and multi-site monitoring

The Catvision site management software allows for authentic remote client system management, from performing all system functions to set-up, viewing, reviewing and management, within a country or cross borders and continents.

So whether surveillance is needed for one large site or multiple sites, whether connecting via LAN, WAN or the Internet, this powerful centralised site management software will beat expectations.

Video recording management servers — Virtual matrix or Viewing servers — CCTV cameras — I.P network — Storage — 3rd party systems — Management clients — PDA browsers — Internet — Remote management clients

Storage solutions

CatVision provides flexible storage solutions that can be tailored to suit client requirements. Multiple databases situated on recording servers or at network addressed storage (NAS) areas enable clients to maximise storage effectiveness.

Third party systems integration

Third party systems such as alarm and fire panels, access control, point-of-sale, building and plant management systems and perimeter monitoring equipment can be integrated with the Cathexis systems to provide an extremely powerful single user interface with video verification of events that occur on these systems. Rules based actions can then be initiated from the event data.

Maximise your return on investment

Event and action management

The CatVision Premium software offers intelligent configuration of events and the actions that can be initiated in response to these events.

Events can be triggered from 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 and SMSes, controlling relay outputs, sending alarms to a control room, playing audio clips and controlling a virtual matrix.

Alarm management

Large installations may contain hundreds of cameras which are impossible to monitor effectively on a continuous basis.

In this scenario a "black-screen" monitoring approach is used, in which the system generates an alarm that guides the user to the camera that should be monitored.

The CatVision Alarm Manager software provides this interface with complete alarm logs and the ability to "escalate" alarms to supervisors. A comprehensive reporting facility is included in the software.

Similarly, when monitoring multiple sites from a central location the alarm manager receives alarms from the various sites and provides an automatic connection to the sites initiating the alarm. Alarm video previews with pre- and post-event clips can be automatically downloaded and archived at the control room.
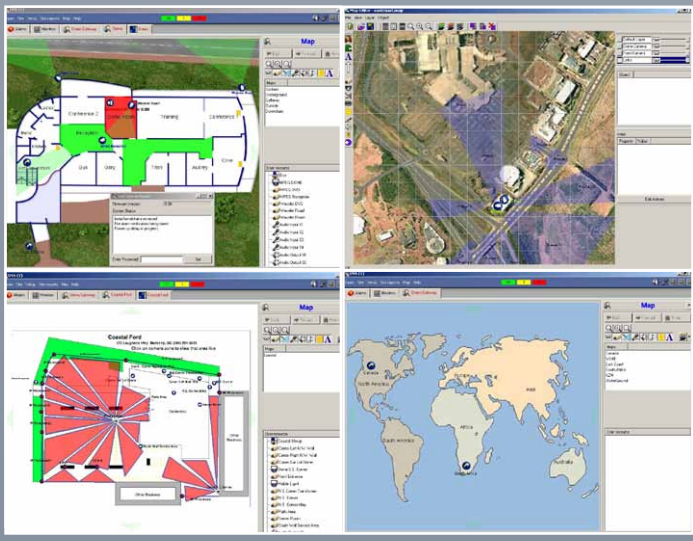
Video analytics

CatVision provides its own analytics suite and the facility to integrate on-camera (Edge) analytics. The Cathexis multi-zone "SMART" learning motion detection algorithms enable intelligent decision making when triggering events, ensuring the relevance of recorded video and minimising false alarms. Post event search analysis; left object detection and people, vehicle and object counting algorithms are just some of the analytics supported by the software.

Health monitoring

The "up-time" of the system is paramount. 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. The system can also be configured to send status reports to a client selected email address with a full system overview on cameras, hard drives, environment, communication, abnormal event numbers, recording times, recording set-up, hardware configuration, software versions etc.

www.cathexis.co.za   *www.cathexiseu.com*   *www.cathexisafrica.co.za*   *email: info@cat.co.za*

Robust architecture, proven track record

Map interface

The Cathexis maps feature multi-layer hierarchical interactive interfaces that provide representation and control of a site and its resources from cameras, input/output devices and access control doors to alarm and fire panel points, and more, on a graphical interface. The map provides the ability to represent and control preset PTZ dome positions from the graphic, drag-and-drop cameras from the map to selected monitors and control selected integrated third party systems.

Access rights management

Large sites often require multiple control rooms and tiers of management. Therefore, for effective site management it is important to control the access levels of the various users. CatVision 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.

Upgradeable Architecture

The architecture of the CatVision software provides clients with the flexibility to upgrade and expand their system or add features whenever necessary. So, whether the camera population needs to expand, the recording servers need to increase or more features are required the CatVision solution easily meets the demand.

CatObserver

CatObserver is a feature that enables a selected viewing monitor to be configured as a "virtual camera" so that all the activity viewed on this monitor is recorded. Advantages include easy archiving and access to all that an operator has viewed during an incident without having to archive or access multiple camera footage.

Setup wizards

To make setup easier and reduce the probability of error, Cathexis has introduced new setup wizards.. These wizards logically guide clients through the setup process for cameras, databases, recording, analytics, events and event actions. The copy and paste facility allows clients to easily apply their setup to multiple cameras thereby speeding up the commissioning time.

Catvision Package Comparison

CATHEXIS

● 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 or later version)	–	●	●	●
SITE CAMERAS				
Max cameras per site	24	36	150	Unlimited
Max recording servers	1	1	Unlimited	Unlimited
Max number cams/server	24	36	64	64
Upgradeable to higher package	–	●	●	●
NETWORK VIDEO				
MJPEG support	●	●	●	●
H.264 support	●	●	●	●
ONVIF support	●	●	●	●
Multiple video streaming (per camera)	●	●	●	●
Multicast Support	●	●	●	●
CLIENT CONNECTIONS				
Simultaneous connections	2 standard	4 standard, 7 max	6 standard, 10 max	Unlimited
Viewing Client	●	●	●	●
Setup client	●	●	●	●
PDA client support	●	●	●	●
API support	-	●	●	●
AUDIO				
Audio recording	●	●	●	●
Audio bi-directional	●	●	●	●
VIDEO MOTION DETECTION				
Basic VMD	●	●	●	●
Cathexis SMART Motion Detection	–	–	●	●
Video Analytics add-ons	–	–	○	○
STORAGE				
Local Storage (On Recording Server)	●	●	●	●
NAS Storage support	●	●	●	●
EVENT TRIGGERS				
Input Event Triggers	●	●	●	●
VMD Event Trigger (Local VMD)	●	●	●	●
Camera VMD Event Trigger (Edge VMD)	●	●	●	●
Third Party system Event Triggers	○	○	○	○
Technical alarm Triggers	●	●	●	●
EVENT ACTIONS				
Record pre-and post events	●	●	●	●
Record sync audio	●	●	●	●
I/O output control	●	●	●	●
Send SMS	–	–	●	●
Send email	–	–	●	●
Send Alarm/Event to Alarm Management Gateway	–	●	●	●
Virtual Matrix Control	–	–	●	●
Play Audio clip	–	–	●	●
PTZ - move to preset location on event trigger	–	●	●	●
Send Technical alrms to Alarm Gateway	●	●	●	●
INTEGRATION				
Integration with third party systems Interactive and metadatabase	○	○	○	○
API integration	–	●	●	●
REPORTING				
System health reports	●	●	●	●
Customizable management reports	–	–	●	●
Alarm Gateway Reports	–	●	○	○
VIRTUAL MATRIX				
Virtual Matrix Monitors	–	–	Unlimited	Unlimited
Number of simultaneous video streams	–	–	Unlimited	Unlimited
Playback of video on matrix monitors	–	–	○	○
Mimic Panel Matrix Control	–	–	○	○
Camera and layout tours	–	–	○	○
Automatic camera and layout switching on events	–	–	○	○
CATOBSERVER (MONITOR RECORDING)				
CatObserver (Monitor Recording)	○	○	○	○
USER MANAGEMENT				
Access rights Control (10 Levels)	●	●	●	●
User logs	●	●	●	●
ALARM GATEWAY INTEGRATION				
Technical Alarms	●	●	●	●
Event Alarms	–	●	●	●
Alarm Escalation and tracking	●	●	●	●
Alarm Gateway Reports	●	●	●	●
MAP SUPPORT				
Site map support (license to allow any viewing user to use maps)	–	○	○	○
Client map support (maps on the remote viewing client)	○	○	○	○
Remote backup/storage (future feature)	–	–	○	○
Recording Server Failover (future feature)	–	–	○	○