

CHOOSING AN IP CCTV SYSTEM

Network Video monitoring solutions from **Y3K** offer unique cost benefits and flexibility in the applications of Security, CCTV, Surveillance, Remote Monitoring, Webcams and Leisure business.

Advantages over Analogue CCTV

1 Scalability



An analogue CCTV system is designed to record security cameras locally only. This means that if you have 2 or more premises, then each will require a Recording Device, this makes managing larger systems harder and not very cost effective.



IP CCTV systems do not require local recording, they can transmit their images across Local Networks, the Internet and Wide Area Networks to a central location, where they can be recorded, viewed and managed.

2 Performance



Analogue CCTV systems are based on PAL technology and have a maximum resolution of 414,720 pixels, the core technology behind analogue CCTV is designed for analogue TV broadcasting and is not capable of taking advantage of the advances made in Image Sensors, which can provide CCTV images of up to 7,680,000 pixels. This limits the amount of evidential quality images a single camera can supply, or put another way the area it can watch, increasing the number of cameras required to watch an area, increasing costs and causing building aesthetics issues.



IP CCTV systems convert all images to data and therefore have no theoretical limit to resolution, providing the relevant bandwidth to transmit the images exists. IP Cameras that offer high resolution images are called Megapixel cameras, and they are capable (to date) of providing images of up to 7,680,000 pixels, which is over 18 times the visible resolution analogue CCTV images can provide, meaning a single 7,680,000 pixel (8.0 megapixel) IP CCTV camera can give the same coverage area or resolution as 18 analogue cameras.

3 Cabling



Analogue CCTV systems have their own proprietary cabling. Each camera has to be wired back to the DVR or Monitor using RG59 Co Axial cable or similar Video Signal Cable and each camera has to be connected to a power source. This makes new installations and additions to existing installations both expensive and slow to implement.



IP CCTV systems run over existing IP networks, wired or wireless, this makes wiring IP CCTV systems simple, causing less disruption, reducing the time required to install them and minimising unsightly cables. If POE (power over ethernet) IP cameras and networks are used then the IP CCTV cameras do not need separate power, they can be powered through the network.

4 IP CCTV Connectivity



Analogue CCTV systems are designed to be closed circuit systems, this means that they do not integrate easily with Access Control, Intruder Alarm or other systems that are found in buildings. Each system requires its own cabling infrastructure and each device on each system is unable to communicate with other devices.



IP CCTV systems communicate using IP, allowing them to integrate and co-exist on the same network/cabling as other IP based systems, such as Access Control and IP Telephones etc...

5 Hybrid Connectivity



Analogue CCTV systems are excellent value for money, and though the general consensus is that IP CCTV is more expensive, this is not true for every given scenario. Also IP CCTV represents an investment in to a future technology and infrastructure, whereas analogue CCTV systems are based on old technology.



IP Systems can work out to be far more economical than traditional Analogue solutions. See below for 2 examples:

EXAMPLE 1:

Watch a Single Camera from another location and from different positions in the same building:

Analogue CCTV Solution: Install a camera, monitors and a Networkable DVR.

IP CCTV Solution: Connect an IP CCTV Camera to the buildings IP network and then view the camera remotely or locally on existing PCs.

Result: Quicker installation time, less equipment required, lower cost.

EXAMPLE 2

View and Record Multiple Cameras at 4 branches of a Retail chain:

Analogue CCTV Solution: Install multiple cameras at each branch and connect them to a Monitor and DVR locally. This would involve each store making sure their system is recording and need the images to be viewed live to detect crimes taking place, as well as to review recordings.

IP CCTV Solution: Connect multiple IP CCTV Cameras to each branch's IP network and then transmit these via Broadband to a central location, where all the cameras from all the branches can be recorded and viewed by one person, such as an area manager.

Result: Less equipment required in each branch, easier and cheaper to manage the system by saving staff time, resulting in increased efficiency and productivity.