Analogue :: HD-TVI :: IP

Which Should I Choose?

Why not Ask the Expert?

CCTV technology has changed over the years since its inception in the 1940s, electronics have become more advanced and more compact each year and cameras are now commonplace in most streets and businesses.

The early "noughties" saw cameras being mass produced with colour electronics and a move from tape recording systems to digital video recorders saving footage on hard drives.

Since that time picture resolutions and recording quality have all improved but there has been little in terms of major changes in the industry until the last three or four years.

First came the buzz word "IP" and now "HD" so **what does it all mean?**

Analogue CCTV

Most CCTV systems you will see out and about are analogue CCTV cameras and analogue recording devices. The "analogue" technology has been the CCTV staple for many years now and still is a perfectly adequate technology for many installations where general surveillance is required. However Analogue lacks the stunning high definition picture quality of HD and some IP CCTV systems. As many end-users are used to home HD TV at home, HD CCTV is now being adopted by many installers to live up to end user expectations.

Pros	Cons
Low Cost	Limited Resolution
Massive Choice of Styles	Suffers noise/interference
Compatibility with most existing installs	
Easy to fit (Co-Ax)	

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IP CCTV

Another high defi nition alternative to analogue that is popular for new installations as it can use a building's existing IT network to transmit CCTV images from one location to another. IP is quite liked by some installers as it can share the customers existing LAN but this can be as much a curse as a blessing. Often the LAN is not fast enough for the huge bandwidth required for IP CCTV and the installer can't stop the customer altering or tinkering with their own LAN after install! This can result in call backs when the cameras don't work properly due to "bottle necks" on the LAN.

As IP cameras sometimes reside on a customers LAN its not offi cially a "CCTV" system any more as this refers to "Closed Circuit Television System" and the LAN actually Opens it up! Maybe it should be called OCTV IP ! Some IT departments also don't like the vulnerability of sharing the LAN with CCTV equipment.

Pros	Cons
High definition quality	More expensive than analogue
Easy CAT5 cabling	Limited designs as such new technology
Can use an existing IT network	Requires networking knowledge for set up
Good choice for IT professionals who know what they are doing	No single worldwide IP standard as yet, although ONVIF 2 is getting better
	Can Suffer from network interruptions and delays (shared resources, ie LAN)
	Not cross compatible with analogue equipment
	Larger hard drives required for storing recordings

HD

This latest HD technology off ers superb HD 1080P picture quality at little extra cost to standard analogue equipment but uses the same cable and many of the same accessories so it represents a truly aff ordable upgrade path.

Pros	Cons
Uses existing RG59 & CAT5 type cables	Higher quality so larger bandwidth used
High definition megapixel surveillance	Higher quality so more HDD space used
Up the co-ax telemetry available	New technology so limited designs available
Some DVRs (alienMEGAHero) take TVI, analogue & IP cameras for an easy upgrade path	
High resistance to EMI so lossless	
Non proprietal so fast becoming an industry standard with wide choice available	
Closed system so reduce cyber attack risks	

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