

Written by Bob Snyder
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Frank Crouwel, Managing Director, NW Systems Group

During 2014, the global value of IP camera sales will reach the tipping point when compared with analogue CCTV cameras, according to IHS (formerly IMS Research).

Jon Cropley, IHS' lead analyst covering the surveillance market explains: "The video surveillance equipment markets in EMEA and the Americas have already reached a 'tipping point' where revenues from network video surveillance equipment exceed those from analogue equipment. At a global level this is not forecast to occur until 2014 due to the continued growth of the market for analogue equipment in Asia."

IHS' global report on the video surveillance market based on 2013 sales (which should be out by June 2014) may even reveal that the global 'value tipping point' has already arrived – spurred on by rapid migration to IP video in China and the rest of the Far East.

IHS' figures also reveal we have a very long way to go in terms of camera unit parity. The numbers indicate that in 2012 only 16% of all surveillance cameras sold worldwide were network cameras.

And why has it taken IP cameras so long to reach this tipping point when the digital video recording tipping point was reached a full 8 years ago?

Recently, in a blog, Frank Crouwel, MD of NW Systems Group identified and explained the **Top 10 drivers for IP video adoption**:

“While network camera sales have been growing at 20-30% year on year, traditional CCTV camera sales has remained in single digits. So the tide has definitely begun to turn towards network video. There is no doubt lots of drivers have been moving the market in the direction of IP video. We’ve created a list of the top 10 over the last 10 years that have brought the market to the oft-heralded tipping point for IP cameras.”

1. The advent of **HD and multi-megapixel resolution** meant the best resolutions were offered by IP cameras

2. **Improvements in compression** (most notably the developments in H.264) meant network bandwidth usage became more manageable, coinciding with wider adoption of high speed broadband and now fibre-based ‘superfast’ broadband in the UK and elsewhere.

3. **Power over Ethernet standards** reduced new camera installation costs and enabled power to be delivered to even the most power hungry cameras with infrared, heating and fans inside housings of external cameras, all via the same Ethernet cable that carries the video streams from the camera

4. The **outpouring of new functionality** largely from the IP camp – wider adoption of thermal imaging, video analytics and intelligence, improved sensor sensitivity and new image enhancement technologies, edge-based storage, remote and mobile access, 360 degree vision cameras with de-warping and much more

5. **Development of industry standards** to aid interoperability between different network cameras and other associated security products, most notably video management systems and access control equipment. This setting of standards has definitely cleared one key barrier to the adoption of network cameras. They are no longer locking the customer into a single brand solution. So is it possible to easily mix and match camera providers with open architected VMS providers like Milestone. Integration with access control systems, EPOS solutions and ANPR has all been made possible, whilst there are many application developers offering bespoke solutions in niche markets.

6. **An easy migration path** – early focus by camera manufacturers and video transmission vendors like Veracity meant that the transition to IP from analogue CCTV systems could be as quick as the end-user wanted. So the UK’s early investment in CCTV cameras has not been lost as analogue-based systems have been brought onto the network by an array of video encoders and media converters. Products have enabled power to be transmitted over legacy coax cabling for example. Hybrid systems thus have become a significant part of the UK surveillance landscape. The customer has thus been left in charge of making the switch when they have a compelling reason for doing so.

7. The development of cameras and camera **form factors designed to meet specific customer requirements** and focus on early adopter market needs, most notably transport (motorways, trains and buses), retail, casinos and stadiums

8. Budgets have moved from security and facility managers to IT departments in client organisations with **IT and network managers being the driving force** of wider IP convergence within technology-aware companies.

9. IP camera vendors have applied well-worn **sales partner models** which enabled the whole IT industry to grow so significantly in the last 30 or so years. They've invested heavily in training and certification programmes to stimulate traditional security installers and IT integrators alike to get into network video. They've also provided many online design tools, calculators and an array of technical guides and collateral to assist installers. They educated an army of partners to spread the word and sell the benefits of migration to IP. A process that is still ongoing.

10. Finally, linked to point 5 and 8, it has become much easier to integrate network cameras with other IP-based applications as much of the business application world has gone IP and **IP convergence has become widespread**

. Nearly every important business application is networked today. Applications and devices can pass data to each other over the corporate network. That combined data equals intelligence which delivers real business value and potentially greater profitability and certainly better customer service. This interaction opens up a world of opportunity so that your surveillance camera in a store goes from being a device focused purely on catching thieves and reducing shrinkage to becoming the device that alerts the store manager on his smart phone when one of the company's most valuable customers has just walked into their store.

IP cameras are quite simply delivering much more value today and they are doing it more easily than analogue-based CCTV cameras.

"We are reaching the tipping point in terms of revenues being generated by network cameras over traditional CCTV cameras, even if the unit sales are nowhere near this point yet.

Factors leading up to this tipping point include: continuous improvement in technology (HD, H.264, PoE, open platform standards etc) and the advents of the intelligent network camera with in-built video analytics and accessibility from remote locations and via mobiles have played their part.

A focus on interoperability between video surveillance devices has dovetailed with the migration of most business applications onto the network, creating massive scope of integration between business operations systems and passing back previously unconsidered business advantages. Access to higher speed networks and broadband has also helped make wider network video adoption possible."

IP Camera Sales: Close to 50% of Total CCTV Sales

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As NW Systems Group's Crouwel writes, "Despite all these developments, network cameras are not plug and play devices and correct system and network configuration is not a walk in the park. Security installers getting into network video surveillance still need to acquire networking skills or team up with a network video specialist to engage with this growing market profitably."

Go [NW Systems Group and Crouwel's full blog](#)