



# It's Time for IP-based Solutions

IP-based video surveillance solutions have been around since 1996, yet analog technology is still a vital part of some markets and segments. Some reasons for this include long replacement cycles and a tendency to do partial security system upgrades.

According to a cost-comparison study of analog and IP-based video surveillance from officials at Axis Communications, there still may be knowledge gaps among installers, and there is a perception that IP cameras cost more than an analog solution would.

The last argument is a weak point because cameras are only one part of the equation, and the total cost of a complete system is dependent on a number of factors.

The objective of the study was to determine and compare the total cost of ownership of an analog system using DVRs and a fully digital system using network cameras and standard network and computer components. The analysis was prepared in 2010 by Lusax, a research group at the Lund University School of Economics and Management in Sweden that specializes in disseminating new IP- and IT-based technology systems in the global security industry. It considered current price points and the latest technological advances.

The research method was managed with a request for proposal (RFP) for one analog and one digital system to be installed at

a retail site. The survey was sent to a sampling of U.S. integrators that are actively selling and installing both types of systems. Bids were sought for both analog and IP-based systems. A realistic scenario was then developed, which also included a site plan and a set of technological requirements.

Five integrators replied to the RFP, containing bids for both analog and IP applications, with all data compiled in a structured manner to be analyzed. Integrators also were interviewed, answering a broader range of questions about their views and experiences working with different surveillance solutions and technologies.

One profile taken into consideration was the total cost of ownership, or the “up front” or “hard” costs of a video surveillance system. This includes the basic component costs and labor involved in designing, installing and deploying a system.

From the Axis whitepaper: “The fictitious case was set in a retail store context, where the purpose was to compare the total cost between a ‘greenfield’ installation of an analog camera and DVR systems and an all-digital IP-based solution. Given the cost focus, the case conditions were somewhat simplified, and peripheral components and additional features that would not have a direct impact on the comparison—public-view monitors—were left out. The basic conditions of the case were set within the location of a medium-sized retail store. There was to be no pre-existing coax cabling, IP network infrastructure or power equipment for

the video surveillance system.”

The project was to be for surveillance only, with two technical scenarios: an analog camera with DVR recording; and a fully digital system with network cameras, video management software and standard IP network and storage solution. It also included a three-camera layout per scenario: 14, 25 or 40 cameras.

According to the whitepaper results, “The total costs provided in the integrators’ bids were averaged in the six different camera layout alternatives. Cost categories were added together in four main groups, including cameras, cabling, recording and labor.”

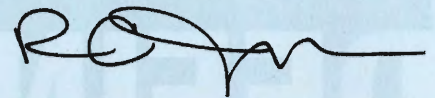
The IP alternative turns out to provide a lower total cost of ownership for all camera layouts, and the IP cost-benefit relative to analog is smallest in the 14-camera alternative but does increase as more cameras are added. For 14, 25 and 40 cameras, the IP solution has on average 11 percent, 13 percent and 16 percent lower cost, respectively, than the analog system, though in the case of the 14 cameras, all bids came in relatively close to one another.

In the 25- and 40-camera categories, the spread between analog and IP video surveillance was larger, probably because of the cost associated with recording capabilities: Cost in the IP system is about half the cost of its analog counterpart. Labor costs also represent about 25 percent of the total system cost and are slightly lower for the IP alternative, probably because of shorter cable runs.

Researchers also conducted interviews with the study participants, some of whom said they are doing predominantly IP-based installations today, and that the number of analog projects is falling. All installers agreed that IP is the future for video surveillance, especially for greenfield installations. All submitters agreed that IP-based video surveillance has many more benefits than does analog, including increased scalability and flexibility.

The independent study clearly shows that IP-based surveillance systems are the way to go, and compared to study results taken in 2007 that show the break-even point at about 32 cameras, IP will hold its own from the beginning. While it is true that IP cameras have a higher cost per unit than analog cameras, the total system cost yields savings for users. Installation and deployment also contribute heavily to the total cost of ownership.

In its final analysis, the study pointed to superior image quality of IP-based products, a clear differentiating factor when making a selection or when arguing for an IP-based surveillance system. When the choice requires better images, IP-based solutions offer the clarity needed to make the final decision. ■



## Making Access Control Easier

### *Fusion Web Client™ Access Control Interface*

Managing your access control system should be easy. That’s why you need to know about our Fusion Web Client™, a web-based interface to DNA Fusion™. Users can now manage alarms, events, hardware and personnel remotely from virtually any web browser. Fusion Web Client™ is the perfect solution to ensure that your facility’s system is operating properly when you are on the go.



877.818.7001 [www.openoptionsinc.com](http://www.openoptionsinc.com)



Circle 204 on card.