



IP/Video Surveillance

THE DEBATE IS ON ETHERNET-BASED IP NETWORKING VERSUS COAXIAL-BASED ANALOG NETWORKING

By Nathan Wheeler

When cable television was introduced to the public, a fierce debate erupted about whether the transmission medium would replace traditional open-air-based antenna television. Those in favor of the new technology largely based their argument on a single precept—consumer demand. To put it simply, people wanted and were ready for the channels, content and options that cable television offered.

For the past several years, a similar debate based on the acceptance of a new transmission technology has been going on in the security industry: traditional coaxial analog video network-

ing versus IP/data video networking. It is a hot topic at trade shows, in conference rooms and at training sessions worldwide, and it will probably continue to be so for years to come.

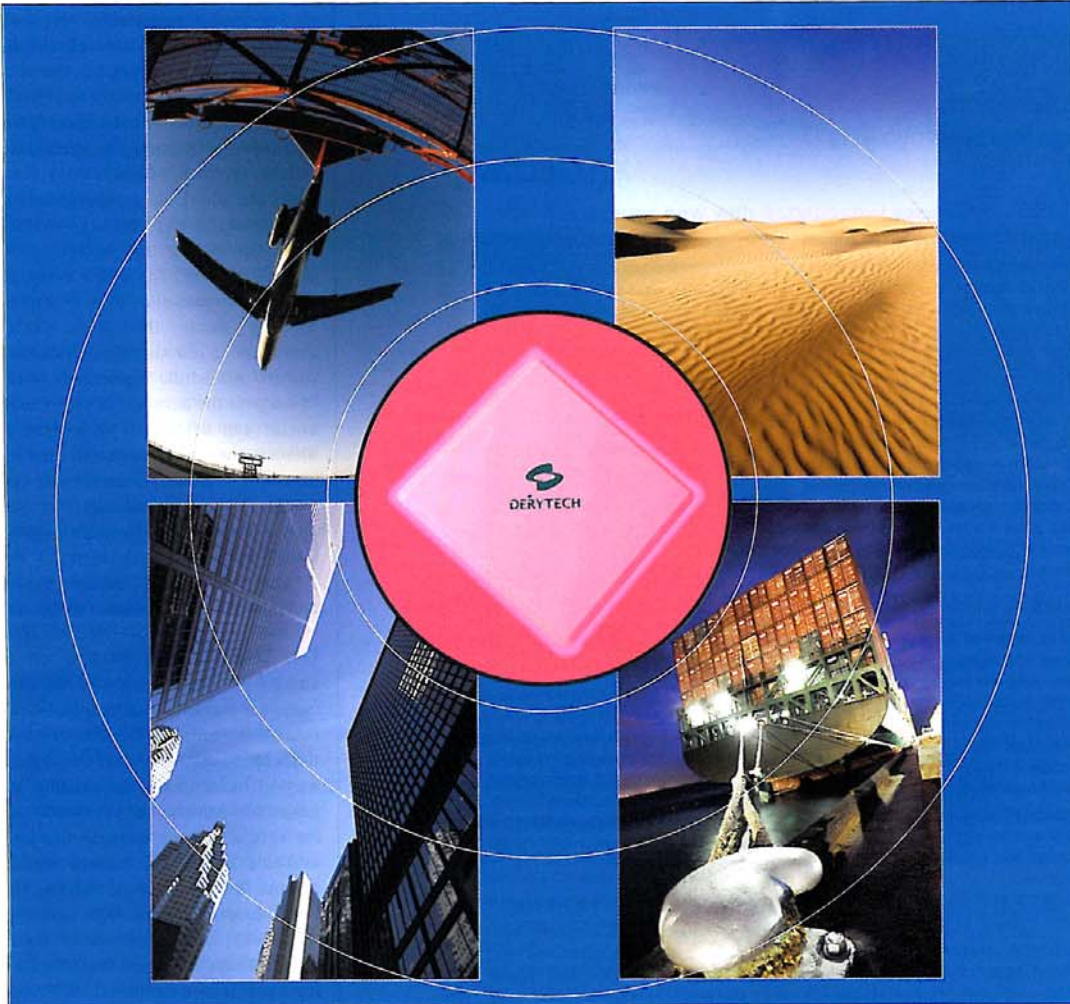
Consider the fact that basic surveillance networks consist of three primary components—cameras generating content, a wire-based transmission medium for transporting content and a recording device for data. Tune out all of the background noise about functions and feature sets, and what remains is a simple platform of components upon which rests the foundation of nearly every major surveillance network deployed. Once deployed, the question becomes very simple: Which of the two systems offers more?

Security directors are always looking to maximize the performance of a video surveillance system in terms of both coverage and image detail. With IP-based high-definition multi-megapixel cameras, they now have this ability like never before. A few years ago, the concept of zooming in on recorded or archived video to view and recover clear, forensic, detailed information was exclusively reserved to magicians on television shows like "CSI." Now, with cameras recording at resolutions higher than the best available monitors can display, forensic zooming and analysis of recorded data have become as simple as point and click.

With the introduction of Arecont Vision's patented 180-degree and 360-degree panoramic cameras last year, it is now possible to put multiple, multi-megapixel high-definition cameras inside of a single camera body—four separate 2 megapixel cameras, each with its own CMOS image processor, all operating over a single Cat-5 connection. For the first time, security personnel can view a sweeping landscape of imagery at amazingly high resolution with a single camera.

The storage and bandwidth requirements of these HD megapixel cameras has been the most common issue preventing widespread acceptance of implementing systems based on IP megapixel technology. With gigabyte switches and terabytes of storage available for hundreds of dollars rather than thousands, a valid argument nearly ceases. Now, with the rollout of megapixel cameras with H.264 compression, the bandwidth and storage requirements for IP megapixel cameras have dropped tremendously. New H.264 megapixel cameras now offer bandwidth that's 25 times greater than conventional MPEG megapixel devices, along with incomparable resolution. As a result, the longstanding arguments against IP networking no longer apply.

Nathan Wheeler is the Western U.S. sales manager for Arecont Vision.



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