

Will Digital CCTV Send Analog Technology to the Scrap Heap?



With its combination of improved and expanded features, greater reliability and added convenience, digital CCTV has found plenty of supporters among high-end corporate users.

Photo courtesy of Dedicated Micros

The technology exists for customers to have clear, searchable, even zoomable digital video, but what's the point if no one's buying? In order to sell digital CCTV, dealers are spending more time educating their customers than ever before.

T By Patrick Brady

he promise of digital CCTV is enormous. With it, a user can archive clear video that can be easily searched, won't degrade and can be viewed remotely, all without the unwieldy bulk of aging VHS tapes. But if it's so great, why isn't everyone already using it?

There's a simple, one-word answer to the question, beginning with the letter "E," but it isn't expense, it's education.

More than any other system they handle, dealers are saying that selling digital CCTV requires sitting down with prospective customers, listening to their needs, and then educating them on how digital CCTV can help them meet those needs.



Dealers of digital CCTV find the ability to view digitized video remotely one of its greatest selling points.

Educate Yourself as Well as Your Customer

According to many dealers, much of their CCTV business is already going to digital. Jim Deeds of Alarm Systems in Wichita, Kan., says 90 percent of his work is digital. "It's my preference," he says. "It's easier [to install], clearer, easier to troubleshoot and it holds up better." A big part of his job, though, is now educating himself and his customers. "You have to stay on top of what's new; there's so much out there."

A key part of any sales pitch is overcoming objections; taking the time to properly inform a customer about the format can be the key ingredient in making a sale. Mark Weiler of Cambridge Security in Omaha, Neb., says many of his customers don't fear the technology so much as the format. His customers have said, "I don't want to be the one who buys Beta," comparing digital to the superior (to VHS) videotape format, now out of circulation for nearly 15 years. As a result of those fears, Weiler says digital CCTV still isn't a significant part of his business.

"Education is the big factor," contends Hitek Electronic Security Inc.'s Fred Fullmer. Education begins with the staff, according to Fullmer, making sure that they understand the systems' capabili-

ties inside and out. Only then, he says, can the sales force truly educate clients on the advantages of digital.

At Certicom Security in Beaverton, Ore., Doug Jarvis' experience has been a little different. "Companies that have multiple sites, that have done more research, are the ones that understand it better and are more likely to buy it." For that reason, he says, most of what they do is still analog; only their very largest customers are going digital.

Sell the Customer on Convenience, Reliability

All of the dealers spoken with agreed that digital CCTV is still more expensive than analog. However, most insist that digital systems give their customers better value through increased convenience and more reliable performance.

The fact that digital video recorders (DVRs) have few to no moving parts is making it easy to explain to customers how they won't be susceptible to the same failures as VCRs. Without tapes to change (or forget to change), DVRs are simpler than VCRs to operate.

The two biggest selling points for digital CCTV are convenience and reliability, agrees Bob Clark, vice president of sales for Alarmco in Las Vegas. "We want convenience and we want things to work.



Digital CCTV still carries a premium with its added features. The price difference may help account for why digital sales represent only a fraction of total market share.

[With digital] you don't have to worry about parts wearing out," states Clark. Because there are no tapes to forget to change, "it takes away a lot of the employee error," he adds.

the smaller systems his company sells "the price gap is \$400 to \$500." That price gap becomes inconsequential, in his view, when reliability is factored in. "You're paying more now," he admits, "but you won't have parts wearing out further down the line."

Deeds says, "the main thing is keeping customers happy." For his company, that means finding a combination of quality and reliability.

Fullmer concurs: "When they see how it works and how they don't have to mess with tapes, it's a seller." He is quick to state that digital CCTV is their hottest seller. "It's what is making our customers happiest."

Charlie Mannix, vice president of product development for Integral Technologies in Indianapolis says many of its dealers "don't sell VCRs. They don't want to deal with analog systems." He points out that reliable products are associated with better dealers and vice versa.

For Some, Convenience Means Accessibility

Not everyone measures convenience the same way. For some dealers and manufacturers, convenience is measured in the ability to access images once they are stored. View-

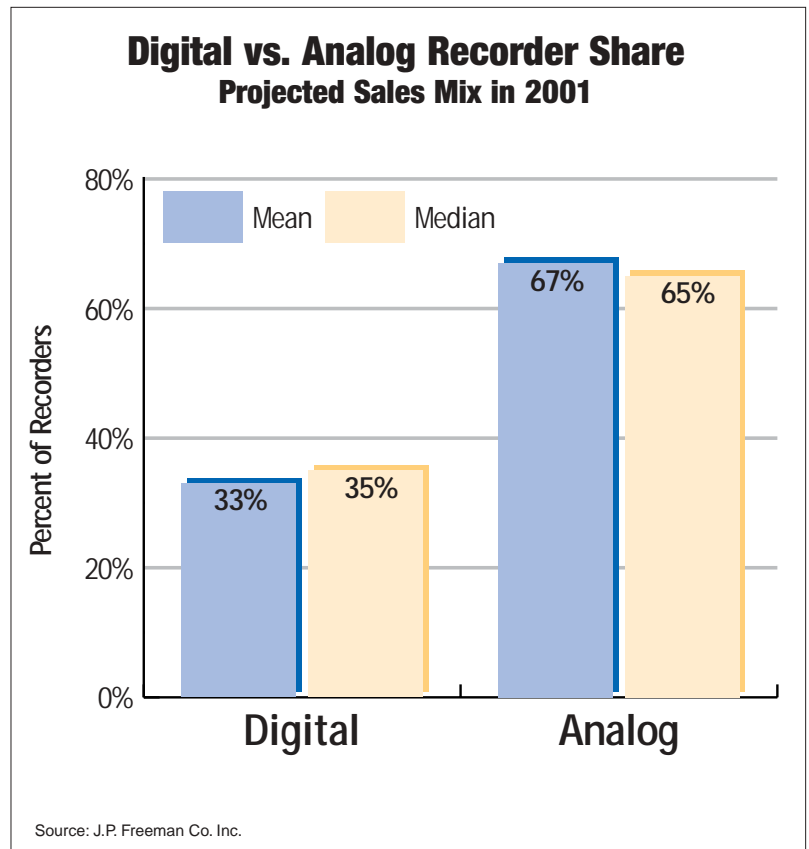
“ WITH THE PRODUCTS I USE, THE COST IS ONLY SLIGHTLY MORE ON DIGITAL THAN IT IS WITH ANALOG. ”

Tim Moore
IBT Video Systems

Hitek's Fullmer agrees that simplicity for the user is a central feature. "Ease of use," he says, "is a big feature for the customer." Many of Fullmer's clients employ security personnel to monitor their CCTV. Training is also a critical issue. "There's a high turnover rate in security guards," he states.

Many dealers contend they simply don't wish to service broken VCRs anymore. Selling a new DVR is, across the board, considered to be a better service to the customer, giving them a far superior product to the ticking time bomb of a repaired VCR.

"I've told my sales staff I don't want to see another VCR tape as long as I live," bellows Clark. For most of



J.P. Freeman reports that the digital share of recorder sales is only one-third of the overall market, despite the optimistic experience of some dealers.

ing recorded video through random access and remote access is having a revolutionary effect on the use of CCTV at some companies.

"To see live recorded video," notes Mannix, "without having to go out to the site is still one of the biggest things that attracts people to these products. Random access and remote access are the two biggest reasons people buy digital."

Dealers and manufacturers alike are quick to cite that, with event tagging, what used to take hours to find can take mere seconds. The ability to search by event not only makes searching quicker, but it has increased the usefulness of CCTV.

One of the newest storage methods cited doesn't even require recording



Charlie Mannix, vice president of product development for Integral Technologies in Indianapolis, says that in the future, digital CCTV will be used to create demographic data.

time-lapse video. By cycling video through a buffer that temporarily stores the video, images can then be committed to a DVR based on an alarm or event. If someone should signal an alarm, video recording begins 30 seconds before the actual event thanks to the buffer system. The system, say some, will remove the need for terabytes of storage by accumulating only events.

Charlie Pierce of LRC Electronics and LTC Training Center in Davenport, Iowa,

With New Technology, When Is the Price Right?

New technology that offers previously unheard-of features comes at a price. Production costs are initially astronomical. Society has learned with TVs, VCRs and computers, prices eventually drop while quality continues to increase.

One of the big questions surrounding digital CCTV is where prices are headed. Certainly they have come down, but have they come down enough to be a reasonable value based on the quality and features offered? Many dealers seem to believe prices are becoming competitive.

Mark Weiler of Cambridge Security in Omaha, Neb., says, "There will always be the mom-and-pop convenience store price concern." Weiler, like many others, states that the smaller installations his company is performing weren't going in mom-and-pop locations, but into small-facility, multilocation company properties.

Installation Manager Mike Radabaugh of Protection One in Cleveland says "On the bigger jobs, we're going digital and digital multiplexing." Digital effectively cuts his CCTV market in half. With smaller systems, he says, "It's just your basic camera. Price is a factor. On the smaller jobs, people don't want to spend the money to begin with."

"It's still so new," adds Jim Deeds of Alarm Systems in Wichita, Kan. "It's still going to be high. If you want it, you are going to pay for it."

"Analog pricing has become extremely competitive in order to keep a piece of the market," states Joe Freeman of J.P. Freeman Laboratories in Newtown, Conn. As a result, he says, "the price premium for digital recorders is 54 percent for digital over analog."

Others aren't so sure that digital CCTV is all that expensive. Christian Simpson of Commercial Services in White Bear Lake, Minn., states "anyone who has a CCTV need who has been able to afford the technology in the past can get into digital without a big stretch." Simpson sees the pricing of digital equipment as fair and not likely to come down much.

IBT Video Systems' Tim Moore, located in Crown Point, Ind., agrees. "With the products I use, the cost is only slightly more on digital than it is with analog." He continues, "prices have stabilized in the last six months. Price isn't the main issue anymore."

says it can be difficult to pinpoint what is convenient and what new features and functions are truly useful. "We've had many new players in the last two years, most coming from the computer industry. Some were leaving the industry almost as quickly as they entered."

Pierce adds that dealers may lament the service and incompatibility issues the fly-by-night operations create, but the bigger problem comes in educating customers on what features are truly useful. "Our industry, during the past three years, has become hugely diluted." According to Pierce, features that were once commonly agreed upon, such as 30-frames-per-second video, can't even be found on some new offerings.

Be Careful What You Call a Digital System

Defining just what a digital system is can be a difficult thing, depending on where you draw the line.

“ CCTV ISN'T PURELY A SECURITY MARKET ANYMORE. IT'S CREATING APPLICATIONS THAT JUST WEREN'T THERE IN THE PAST. ”

Bob Grossman
Sensormatic

Bob Grossman of Sensormatic Electronics Video Systems in Boca Raton, Fla., explains, "If you look at muxers, we've been transitioning to digital for years." He says what people are calling digital systems aren't fully digital, but "hybrid systems." He finds the debate of digital vs. analog to be largely academic. "You can't put together a system that isn't half to mostly all digital."

This gradual transition from analog to digital componentry means customers have seen great advances in quality, functionality, conve-



The new combinations of technology and software allow end users to monitor their businesses in new ways.

nience and reliability, but a logjam looms on the horizon, says Pierce. "The industry is definitely going digital; you can't stop that. It's a good thing to do, but the industry isn't really ready for full digital systems. Cabling will have to be upgraded to go truly digital. You've got all this coaxial cable in these buildings, and when the next generation of digital cameras comes out, [that cable] won't work with it; heck, those cameras are already out there."

While such a sobering realization may concern some, Pierce sees it as a great opportunity. "It's good and it's bad. It'll be expensive, but it'll give installer/dealers a chance to go back and do cabling right."

Predicting the End for Analog Systems

Opinions vary for the demise of analog CCTV technology. Just how soon the end will arrive remains the stuff of speculation, but everyone has an opinion.

Doug Jarvis, technical support manager for Certicom Security in Beaverton, Ore., looks at it in terms of cost-effectiveness. While he

thought the technology would be available for some time to come, he says "in two or three years, it won't be cost effective to do analog."

"In five to 10 years, you won't see analog," says Deeds. He believes manufacturers will cease to produce items the industry sold as state-of-the-art only five years ago.

Christian Simpson of Sentry Systems Inc. in White Bear Lake, Minn., believes an all-digital market is just around the corner. "We're moving toward it fast," he says.



Charlie Pierce, president of LRC Electronics and LTC Training Center in Davenport, Iowa, says the entry of computer companies into the digital CCTV market has diluted sales for manufacturers in the security industry.

Registering dissent, Joe Freeman of J.P. Freeman Laboratories in Newtown, Conn., says "there will always be a niche market for analog recorders." Freeman points to the main street in any small town. The small businesses dominating this slice of America, according to him, may

have a need for CCTV, but they won't have a need for multiple cameras available to be viewed over a network.

While Freeman says that the analog market probably won't ever disappear, he notes just how quickly the digital market is anticipated to grow between now and 2005. "Digital recorders are 19 percent of the total market. By the end of 2005, that 19 percent will become 62 percent."

The market does not yet favor digital CCTV. Statistically, it is still in the minority, one that represents less than 20 percent of all recorders sold. The indus-



The scalability of digital CCTV means that an appropriate solution can be created for virtually any customer.

try has a vested interest in seeing the market go in that direction, though.

margins, more than justifying the extra time devoted to the sales effort. At the high end of the market, represented by the corporate users who desire to see networked video in a variety of installations, digital CCTV is the only way to go. Freeman states, "Anyone who wants networking needs that digitization."

Digital CCTV's combination of high-end features (networking, searchability, convenience and reliability) are very attractive to corporate end users. If only one detail of the digital CCTV market is certain, it is that as new features emerge, increasing the technology's usefulness, more and more customers will go digital. ■

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Many dealers say more expensive digital products also net them greater profit

“CABLING WILL HAVE TO BE UPGRADED TO GO TRULY DIGITAL.”

Charlie Pierce
LRC Electronics and LTC Training Center

Creating New Markets Where None Existed

The intersection point between digital CCTV and computers is poised to spawn whole new markets for digitized images. From marketing data to crowd security and facility maintenance, product developers say the greatest challenge is to think creatively enough to imagine new applications for the technology.

Indianapolis-based Integral Technologies' Charlie Mannix says retailers can combine CCTV with biometric face-recognition software to generate marketing data. On a simple level, it can be used to track the number of people who walk through an area in a given time.

Right now, similar software is being used in a shopping district in Tampa, Fla. At the Centro Ybor district downtown, the Tampa Police Department is using face-recognition software to pick up the faces of wanted felons out of a crowd of people. The software scans faces automatically, and if no match is made, the images are discarded, a process that would undoubtedly be much more cumbersome were it to involve videotape.

Bob Grossman of Sensormatic in Boca Raton, Fla., says building managers are using remote monitoring in entirely new ways. Some are even "dialing in to see if bulbs are out." He is quick to assert that "CCTV isn't purely a security market anymore. It's creating applications that just weren't there in the past."

The implication is that forward-thinking dealers don't have to wait for the future to market their products in ways that aren't purely security related. The more creative the sales representative is, the broader the use of a dealer's product line.