VideoInsight

White Paper: IP Video Management Software Going Vertical: One Size Does Not Fit All for the Campus Environment

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An organization in the market for a video surveillance solution could easily find itself overwhelmed by the choices yet underwhelmed by the selection. In an industry with *hundreds* of manufacturers releasing *hundreds* of products, the result is usually the same: a one size fits all solution for end users with varying needs and skill levels, otherwise known as a 'horizontal' solution. Add to that the fact that most evaluators go about the selection process backwards by choosing the video camera first and the supporting software as an afterthought.

The good news is with the robust capabilities of IP cameras, *software* and *features* have become a vital part of the solution, requiring a lengthy evaluation of the video management software commonly referred to as VMS. Forward thinking VMS providers are capitalizing on creating 'vertical markets' for themselves by carving out niches that offer the end user specific features tailored to their needs, providing product enhancements specifically focused on them.

What's VMS?

Video Management Software applications were first introduced with enterprise class DVR systems and, with the migration to IP, have separated into an independent product category. VMS allows a user to view live or recorded video from any camera in the business or organization, typically from a monitoring station or from a web based platform.

Explosion of Choices

As IP cameras have gained market share, so have the number of VMS solutions. Camera manufacturers provide nominal cost or free entry-level software applications that users quickly outgrow (you get what you pay for…). Recognizing this opportunity, VMS developers created more sophisticated applications to meet these customers' needs.

With few barriers to enter the VMS market, developers in all parts of the world create solutions with unique attributes for their market which, as a software application, are also easy to sell across borders and are localized for all major languages. Most products are heavily influenced by the VMS developer's customer base and these differences become apparent during an evaluation. End users needs vary by industry and these needs influence which feature is in a product and how it works.

Camera manufacturers have also entered VMS business by offering higher end solutions bundled with their cameras, an upgrade of their primitive (and free) initial offerings. They justify it by pointing out that the bulk of the installs are very small but, understandably, they really just don't want a VMS evaluation interfering with the camera sale.

The security industry incumbents were very slow to adapt to IP based technology. Many ignored the technology until the megapixel camera started gaining momentum. (Crystal clear images are pretty hard to ignore…). Recognizing how late they were to the game, most of the incumbents simply OEM'd existing VMS products – which is reselling the same product with a different skin or some unique features added on top of the base product. This actually multiplied the number of solutions available in the marketplace contributing to the explosion of choices but not increasing the variety or quality. Interestingly, the end user *perceives* these OEM'd products to be different. In depth product evaluation usually exposes these similarities, further hurting the incumbent's position.

Global tech companies have also entered the VMS space as the IP camera started using their network infrastructure. These companies have rock solid relationships with the decision makers and salespeople who

eagerly push to make the evaluators decision an easy one: *Go with a suite of integrated products and don't worry about making the wrong decision.* As the old saying goes "nobody ever got fired for buying IBM."

What's the difference?
As an evaluator trying to make the right decision, VMS choices can be overwhelming. Product evaluations start with a sales person demonstrating a camera, a referral by a peer, advertising or at the very basic level – a web search. The products tend to fall into a low end vs. high end offering, but as the process gets more involved, more VMS product segmentation becomes apparent and includes the following:

Features
The VMS feature set ranges from the basic to comprehensive. Support for camera models can vary from a single model to support for them all. Integration with 3rd party products creates significant distinctions. The VMS vendors are in a low key feature war: one innovative feature requested by customers is typically quickly replicated by all of the vendors.

Casual vs. Full Time User
The right selection *might* depend on WHO uses the system and WHY. If the VMS is used by security professionals in a full time monitor center, their feature set is more unique than the system used by a casual user who occasionally monitors live video or periodically reviews recorded events. When comparing the needs of these two types of users, it's difficult to build an application that fits both the causal and professional user.

Complexity
Some of the VMS features require complex networking or server configurations raising the cost of the hardware required to run the VMS and the ongoing support.

Price Range
Camera manufacturers often include free applications with their cameras as well as shareware available by internet download. The price of these applications is often much less expensive compared to VMS packages that can average a $1,000 per camera (taking the entire solution into consideration).

Product Support Offerings
Products with limited or no support options contrast sharply to those with comprehensive support plans as part of the solution. A VMS that offers a one hour callback guarantee from tech support is head and shoulders above one that offers no tech support at all.

Purchasing Method
Products are marketed and distributed in a variety of ways – the web, direct, indirect, via distributors, bundled, sold by the integrator, part of a hybrid, and more. Each sales channel creates unique challenges. VMS offerings tend to vary by purchasing method.

Industry
There is already a trend towards solutions that are focused on certain vertical markets. Reviewing the customers of a VMS solution can highlight an underlying trend by the VMS to focus on vertical markets such as schools, airports or banks. This can happen by happy accident or can (and should) be a strategic focus. Sometimes it happens due to the macro economy, while at other times they look at the success of their peers which displaces some of their risk. This type of trend becomes self reinforcing, pushing the VMS into a vertical market.

Using the education market as an example, taxpayer funded school districts have unique (and stringent!) purchasing requirements. Surveillance systems are typically funded by bonds that are issued for specific projects and dedicated for a set number of years. The bond funds allow for the upfront purchase of cameras and software, but not for technology support employees which usually are not added as schools have limited budgets for ongoing maintenance. Most schools IT departments are understaffed relative to the size of deployment. Additionally, once approved in the bonds, the VMS products must be procured through those stringent public bid procedures. In certain situations, bid requests can get so specific it eliminates any real competition.

The education VMS features set is unique: they need limited features (as compared to, say, an airport), but they need a huge number of cameras – as they have to monitor thousands of students across sometimes dozens of buildings within a single school district. Integration with access control is common – as there are always areas off limits to unauthorized school visitors or students – and there is also increasing need for integration with point of sale systems in schools, as cafeterias and school marketing departments have turned into commerce centers. Education VMS end users are school people and administrators – not computer savvy technicians – which means they need easy to use systems that don't require a great deal of training.

Now compare the VMS needs of the education system to that of an airport where operators become proficient in the VMS, spending their entire shift using the application. Their funding is typically not as restrictive and their needs are often more intricate.

The task at hand for VMS developers has been to build a feature set to work with each of these segments (and many more!) and their varying needs. The result has been a hard-to-use application, sometimes bloated with features. It's a difficult balance for a VMS vendor to create a software application that serves all of the different markets – and their associated features – while maintaining ease of use. It's like trying to be all things to all people.

The Influence of the Integrator
The system integrator plays a crucial role in the VMS selection process: VMS developers essentially extend their sales force by partnering with integrators. The fact is integrators usually have a devoted customer base – customers who regard them as a trusted authority. Integrators must pick products for them. This selection process can vary dramatically based on geographic, technical and price considerations. Integrators often comment that they don't see much difference between the products. Therefore, many integrators pick a single product so their service organization can provide support. (If they were to offer multiple products, then they'd have a difficult time offering quality support for them all…) They take this single product they are well-trained in and offer it to all their customers.

Evaluators are influenced by the products that are demonstrated. Integrators might have in depth knowledge of a product and demonstrate that product perfectly thereby elevating the VMS in the evaluation. This also works to achieve the opposite effect, however, as a mediocre demo by the salesperson can hurt the VMS.

Integrators also tend to be vertically focused. Some focus on retail, while others focus on commercial. Some are experts at large deployments. Most midsize firms will take business regardless of the industry. Many end up vertically focused due to the references they get and the equipment needed to serve the vertical.

There are integrators who are focused on the K-12 market, for example. They have the unique skill set to meet a K-12 purchase and support those needs. These vertically focused integrators tend to migrate to VMS offerings that fit these K-12 needs only – regardless of the evaluator's needs.

Choose a VMS That's in Your 'Vertical' Market
A complete evaluation of VMS packages is a time consuming process which does not appear to be getting any easier. The evaluator must sift through all the information provided by the vendors as well as the companies actually selling the product. Service, support and references will play a big role in these decisions. Even after a successful product evaluation, decisions are complicated by purchasing issues that have nothing to do with the products (remember the school district bid process?).

Horizontal – or "one size fits all" – packages will continue to get much of the attention because they are designed for such a wide variety of users and are the easiest to sell, but also tend to be the hardest to use. But, 'vertically' focused packages will carve out niches that offer the end user a specific features set that is tailored to their needs and provides product enhancements specifically focused on THEM. As VMS's move to the customer focused 'vertical' market, evaluators, integrators –and in the end – users and their constituents will all benefit.

James Whitcomb is Chief Technical Officer for Video Insight. Video-Insight offers intelligent and user-friendly state-of-the-art IP video surveillance systems. Headquartered in Houston, Texas, Video-Insight software is used in thousands of businesses including schools, universities, hospitals, banks, hotels, restaurants, retail businesses, and government facilities. Visit the website for more information, www.video-insight.com, or call 713-621-9779.