



HOW MUCH FOR THAT VMS?

Its Total Cost of Ownership May Surprise You!

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Introduction

On-premise enterprise video management systems (VMS) can be a huge investment – one of the priciest elements of a company's physical security technology infrastructure. They're also one of the most critical. Without eyes on a property, there's no way to ensure that other systems are doing their job.

Since the pandemic, spending on VMS solutions has continued to rise. Commercial office space vacancies are high, hybrid and remote work models have businesses operating with far fewer onsite workers, crime is up, and security guards are in short supply. Building and security managers are determining that existing cameras provide insufficient coverage under these new conditions, and are therefore seeking to expand their systems. Quickly evolving technology is complicating matters, making legacy VMSs obsolete. Companies unable to leverage the latest generation of cameras, analytics, and integration opportunities are deciding that it's time to upgrade to a new platform rather than continue to throw money into a substandard solution.

As stakeholders wrestle with how to upgrade or replace their VMS network, performance and operational needs take top priority. However, once specifications are agreed upon, and various manufacturers have been identified that meet a project's requirements, price can become the deciding factor. Unlike the straightforward comparison of technical specs between offerings, calculating and comparing the total cost of system ownership is much more elusive. The total-cost-of-ownership (TCO) is affected by many factors – some of which come as an unwelcome surprise to system owners after their VMS is up and running. At that point, it's too late to reevaluate the wisdom of their investment.

There is no magic formula for estimating TCO. Manufacturers structure their licensing, warranties, upgrades, maintenance, training, and other policies in different ways, and their promotional materials rarely spell out these distinctions. After 5-10 years, the actual cost of one system may be as much as 50% lower than another. To accurately evaluate TCO, decision-makers must know where to look for hidden expenses and the right questions to ask. We hope this whitepaper helps readers do just that!

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Device Licensing Practices are Sometimes Tricky!

Licenses are part of any on-premise VMS solution. The licensing model makes systems scalable; users pay more for larger deployments. In enterprise systems with hundreds or thousands of cameras, licensing represents a significant expense.

That said, there is tremendous variation in how much licensing will cost a company throughout its VMS's lifespan. The price-per-license differs by manufacturer, but that is only part of the story. Some manufacturers require a license for each camera. Others charge licensing fees for servers, workstations, storage, and edge devices. Licensing tied to NVRs and servers can pack a disproportionate financial wallop – especially when NVR licenses are calculated based on the number of streams supported.

For example, let's take one 12MP camera that features triple-streaming. With NVR licensing, the camera requires three licenses if all three streams are used, even if the same NVR records all three. Recording redundancy doubles the price. With two servers recording each of the three camera streams, that single camera represents six licenses! By contrast, a camera-only licensing model would require one license for this device, period. Consider how this policy substantially impacts a network with hundreds of cameras.

When NVRs are licensed, adding or upgrading cameras also becomes more expensive. Let's say a customer wishes to replace several 1MP cameras with 5MP models. The 5MP devices will impose more demand on the server. VMS systems may be infinitely scalable, but individual NVRs or servers have their limits. Adding new cameras, or replacing existing ones with higher resolution models, can result in the need for more network hardware. Once again, paying per camera – and only per camera – keeps TCO in check as systems grow.

However, even with camera-only licensing models, there are still "buyer beware" issues to consider. Some manufacturers link each license to the MAC address of a specific camera, making the license non-transferable. Limiting software in this manner is an antiquated approach that takes advantage of the user. When hardware needs to be replaced, there's no reason the software license should need replacing too. Imagine if your laptop died and Microsoft said you must buy all new software rather than transfer your licenses to the new device. You would be irate!

Finally, some manufacturers charge premium licensing fees, per device, to access certain VMS features. A camera's specifications may indicate it "can do" certain things, but it's possible that they are not included with a basic license. When calculating a system's TCO, make sure you understand what your licenses include and what they don't!



Keeping Current is Critical; It Shouldn't Be Costly

Like any software, VMS platforms are constantly improving. The DevOps process used by many software development teams, with its focus on continuous feedback, collaboration, and communication, has accelerated the speed and frequency with which updates are released.

Unlike business software for sales or marketing – for which new releases may be helpful but unnecessary – security software provides a mission-critical function. It should be kept current at all costs. How VMS manufacturers charge for updates affects TCO. Some updates, like those addressing bugs and vulnerabilities, may be free, but others come with a fee. Before purchasing a system, prospective owners should understand what to expect. Are upgrades mandatory? How frequently do they typically happen? Are upgrade protection plans available? How is the price calculated?

Even if manufacturers do not mandate upgrades, they may ultimately discontinue support of earlier software versions, rendering the NVRs and servers running them obsolete unless the customer invests in an enterprise-wide software upgrade and relicensing. Without a systemwide update, the system owners cannot even add a single new camera. By contrast, when VMS software is free and licensing is only required for cameras, the options for keeping systems current remain uncomplicated and less expensive.

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Expectations for Integrations

The flexibility of a VMS to integrate with other security software can lead to lower TCO, although in a more indirect way. First, security teams function more efficiently when disparate systems are managed through a single interface, and events in one system can trigger responses in another. Fewer people can handle more tasks.

Also, savings occur when VMS solutions can perform beyond the function of traditional surveillance. For example, license plate recognition (LPR) is a specialized solution that, until recently, required an entirely separate system. Today, some VMS solution providers offer dedicated LPR cameras and an LPR software component that works within the VMS platform.

Analytics is another value-add available through many VMS platforms as an edge solution. It may require an additional fee for activation, but is far less expensive than paying for separate analytics software, an analytics server, and a third-party integration.



Looking at Labor

When system integrators provide a quote for labor, it's at a fully-burdened rate – meaning it includes the worker's hourly wage and everything else that's required for them to perform their job. Does service require an onsite visit? Is a bucket truck needed? Special equipment or tools? Is the integrator paying the manufacturer for support?

Some manufacturers' products and systems are more difficult and time-consuming to install and support than others, jacking up the burdened labor rate considerably.

Multi-sensor cameras provide an excellent example of this phenomenon, as they are notoriously challenging to install. Only a few manufacturers offer such cameras with remote positioning. This feature allows an integrator to quickly mount a camera and then, from a PC, easily make the necessary adjustments to the pan, tilt, zoom, and focus settings. By contrast, without remote positioning, these adjustments require two workers onsite: one high up on a ladder or bucket truck making the adjustments at the camera, and another viewing the video from a monitor and telling their colleague, "A little to the left; now zoom in a bit."



Clearly, labor for installing the remote position camera should be substantially less. Furthermore, cameras must be readjusted over time. With remote position cameras, this takes just a few minutes; the integrator won't even need to be onsite. The alternative is paying for several hours of labor and a truck roll.

System health monitoring is a second example of a product feature that can simplify service and support. When VMS platforms actively monitor the status of all system components and the network, problems are identified and addressed before they become catastrophic. However, not all health dashboards are equally user-friendly. System administrators will be less likely to use a health dashboard if its interface is too convoluted and doesn't provide automated alerts.

A manufacturer's tech support policies may impact integrators' pricing. Is the integrator paying for this service? If so, they are passing some of that cost along in their burdened rate. Also, can customers request direct assistance from the manufacturer for basic questions? Some manufacturers will only speak with integrators, but if they are willing to help end-users with basic questions, it can reduce integrator service fees.

Factory warranty terms also contribute to TCO. For example, an integrator may provide you with a choice between two similar cameras, but one has a better warranty and costs more. A professional integrator can provide insight into the longer warranty's value, including what is covered. Does the manufacturer offer advance replacement of a defective unit or require that it be repaired and returned? In a mission-critical installation, having a camera temporarily out-of-service is not acceptable. Who pays for shipping? These questions are rarely asked when purchasing cameras or other system hardware, but failing to do so can result in expensive repairs without budgets to pay for them. The camera that costs less up front may end up being more expensive in the long run.

Here's another way to think about warranties. Manufacturers lose money when they have to replace or repair a camera under warranty. Therefore, the manufacturers who offer the most generous terms are the ones most sure their warranties won't be used. Consider the time and energy your in-house security team wastes when technology fails – even if a warranty covers it. All those hours and frustrations contribute to TCO. It's better to choose solutions from manufacturers who are confident in their products' reliability – even if it costs a bit more upfront.

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Training Enhances Your System's Value. Plan on Paying for it.

Video management systems are designed to be user-friendly, but they offer complex features that do require training. A quality training program can make or break the customers' experience, determining whether they derive the most value from their investment. With poor training, it's as if customers are paying for a powerful sports car that they only know how to drive in first gear.

Some manufacturers offer free training; some don't. And some provide free basic training but charge for classes on more advanced topics that only IT and system administrators need. Each time new features are released, more training may also be required. How is that provided? Customers should make sure they understand what's available, what it will cost, and budget for it. Of course, this all contributes to TCO.



Do the Math. You'll Be Glad You Did!

Investing in a video management solution requires buy-in from many stakeholders, each with different priorities. Security wants to know what it will do, IT wants to know how it will work, and accounting wants to know what it will cost.

We expect superior-performing technology will come at a higher price than less robust solutions. However, when evaluating video management solutions through the prism of total-cost-of-ownership, this paradigm does not necessarily apply. In fact, manufacturers who offer better features, more user-friendly licensing models, and more generous warranties and support policies may deliver a lower TCO because these systems continue to provide a high return on investment over time.

When comparing systems before making a purchase decision, estimate the TCO for each. As this whitepaper explains, it will take some time, but the exercise is well worth the effort. You may be pleasantly surprised to discover that when choosing the right video management solution for your facility, the system that's tops technically may also be best for your budget.



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