



# Video Surveillance / Access Control Integration Guide

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One of the most desired high end security system features is integrating video surveillance and electronic access control systems. In this report, we detail the issues involved and the reasons why real world integrators choose to avoid or deploy such integrations.

## Concept

The goal of integrating video management and access control system is to display critical information from both systems in a single interface. The most common integrated function is overlaying access control information on a live camera feed. Here are two examples of what this can look like:



While the layout varies by vendor, the goal is to make it easy for an operator to visually verify that the person entering is properly authorized (and not using someone else's card, etc.). The information commonly displayed include:

- Date / Time of credential read
- Name of credential holder

- Unique ID number or badge number
- Name of door or reader being accessed
- Access Granted / Denied condition

The primary interface for monitoring can be the VMS or access control system, depending on the functionalities offered by each system. If it is the VMS, the access control system must send events to the VMS to display. However, if the access control system is the main viewing interface, it must retrieve and display video from the VMS. A few vendors, like [Genetec](#), [NLSS](#) and [S2](#) are integrating both into a single software application but that is a distinct minority approach.

Typically when integrating two different vendor's systems, the end user must pay for licensing or custom integration. Most VMS and access control systems do not integrate 'out of the box', making integration either infeasible or requiring new software development (i.e. a custom integration using [an API / SDK](#)). Users must check for integration between the specific systems *and* versions they want integrated. If integrations are supported out of the box, it typically costs thousands of dollars. If it is not, it may cost tens of thousands of dollars for custom work.

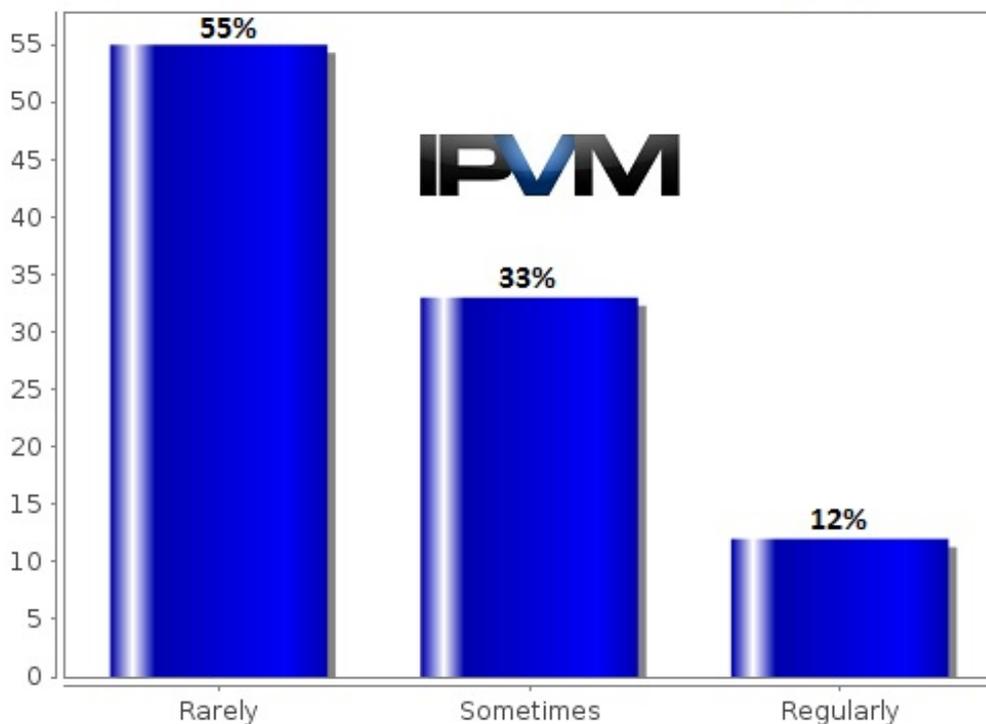
## **Real World Usage**

We recently asked 100 integrators 'What percentage of video surveillance systems you deploy are integrated with access control?' to gauge how frequently this integration takes place. Inside, we examine these responses and pull out some common themes for analysis.

## **Key Findings**

The chart below shows overall integrator usage:

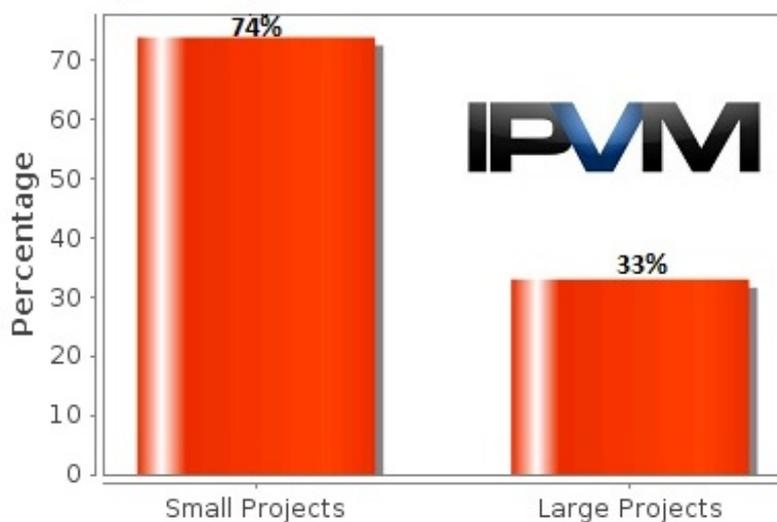
## **Integrating Video and Access Control** (2012)



As the chart demonstrates, video / access integration is overall quite rare in the industry. The results indicate that only 10 - 15% of all systems are integrated.

However, the more cameras a deployment has the more likely they are to integrate video and access. The chart below shows a great disparity in integrators who rarely integrate these systems:

### **Rarely Integrate Access and Video**



While integrators who average 8 cameras per less, almost never integrate access and video, integrators who average more than 50 cameras per deployment are much more likely to do so. Indeed, integrators specializing in large projects integrate video and access about 40% of the time. This is still a minority of all systems but way higher than average.

## **Barriers**

Several common negative themes illustrate why integrators do not integrate video and access:

- Lacks Value: Integrated systems are hard to justify
- No Demand: End users do not ask for this integration
- Too Complex: Integrating these systems are difficult
- Not our company: We do not sell access control systems

### **Lacks Value: Integrated systems are hard to justify**

This single theme is the most fundamental response. The standalone and independent operation of these two systems is not a problem for most users. Customers do not see the value in spending the money for this integration, and the returns on the investment are hard to quantify.

- "Because for customers it isn't important to have them integrated in one system."
- "In our case we do very little integration even though we do install access control. Certainly there are great solutions out there but they are generally more expensive and to date have not been our target customers' needs or budget."
- "The systems both usually sit and do their thing until an incident occurs, in which case it's easy enough to manually compare the CCTV footage to the access control audit logs."
- "They refer to access control system less than to video surveillance and in case of any incident they can look on images from video surveillance easily"
- "We keep these separate as we do not like the integrated CCTV our access control systems provide."
- "Customers always wanted a separate access control system"

- "Cost of integrating systems together is not worth it for most customers unless they need to track an area. If an event does happen they can always look at the time on access system and look up the video. Thus integration is seldom needed unless institutional (hospital, school) or commercial / industrial sector."
- "Rarely see a combined bid for both systems. Generally one or the other. It is used as a selling factor."
- "It is kept separate. The reasons would mostly be incompatibility and the unwillingness to buy a new access control system when the old one is working fine."

### **No Demand: End users do not ask for this integration**

Stated quite simply: demand for integrating these systems is weak. The cost required to integrate these systems is not viewed as a critical expense, and end users are not interested in paying for it. The reasons for this situation are varied, with tight spending contributing to some weakness. However, the fact that most end users do not employ full time surveillance operators means that the efficiency gained by integrating these two platforms is an irrelevant benefit for most.

- "I wish I knew, we are always offering it to our customers, but acceptance has been quite low."
- "Very low times, we are a company that basically installs every shop in our region, shops(coffee shops, dressing shops, etc,) normally need no access control other than an alarm with code."
- "Haven't done one in 7years"
- "Few demand from customers in RFP (We do only large systems)"
- "Cost...usually the first item that is value engineered out of the budget"
- "End users are not sold on the value of integration"
- "Most of our customers are small business companies, not using access control"
- "We have not sold that aspect and our customers are not needing that level of security"
- "Very rare we come across this"
- "Not many of my clients require it."
- "For us access control has not really been a hot market. I do not know why."
- "Everybody wants it during the design process. Then they find out there's a

cost associated, and they start asking what the value is"

- "The need has never come up."
- "Integrating video and access control is major selling point to a good system, but I don't think most customers end up using it."

### **Too Complex: Integrating these systems are difficult**

Another strong theme indicates that integrating these two systems introduces complexity during installation or operation that is best avoided.

- "We'd like to do more but we are challenged with integration options with our VMS."
- "Just because it's integrated doesn't mean it plays well."
- "It depends on who we are installing for. If they are from the...lets say older generation then most want separate systems. They've already learned one system and don't want to add complexity"
- "Aren't really bothered by having two seperate systems to manage and keep updated, as long as they are simple to use."
- "Adds too many variables to an install. Separate systems work best."

Integrators state that a lack of interoperability between systems means that performing this work is at best risky, and at worst not possible. End users value simplicity, even if this means learning two different systems. The introduction of middle configuration between the platforms is viewed as needlessly complex.

### **Not our company: We do not sell door access control systems**

Many responders commented that installing access control was not a core competency. Despite the close operational proximity of these security systems, they are designed and installed differently. Various nuances of hanging door hardware, running cabling to doors, and configuring access control systems are unique and not shared with much of video surveillance.

- "When we start installing access control it will be integrated with our VMS"
- "This is an area we have not exploited but offers opportunities."
- "We are just starting to get into this technology."
- "As a company we have not started training on access control integration."
- "We are not in the Access Control business."

- "Our company specializes in Security Cameras and we only do access control when get pushed into it by an existing customer"
- "We don't deal with access controls"
- "We are lacking knowledge about integration"
- "We dont get into those markets as much as we would like to"
- "We do not install access control."

This theme indicates disparity between integrators and the design prerogatives of several companies. For example, [S2](#) and [NLSS](#) are targeting the SMB market with 'hybrid' appliances that host both video management systems and access control. These products intend to take much of the headache away from configuring and operating these systems (solving half the problem), but the question remains if interest in the SMB market will develop for these combined systems.

## **Positives**

A small number of responses were decidedly positive on this concept, claiming that the integration is operationally helpful to the end user. Some answers suggested that the skills provided distinction when competing for work and that better margins are afforded by the effort over basic video surveillance work.

- "Integration with other business systems is more common and growing everyday. The ease of integration with compatible systems helps in the selling process and provides that extra "value add proposition" to the proposal."
- "Our customers like the event linking with video clips."
- "Integration between the two is essential in today's market. Since physical security has become more of an IT role, central administration is key."
- "We are an integrator, and connecting systems is our first thought... besides it makes sense to provide increased functionality."
- "Continuously promoting our in house Security Management System that integrates different security services."
- "Most of our video is integrated to the GUI. This helps in linking events."
- "Just over half of our projects are combined video surveillance and access control installations."
- "I think it is just becoming time to offer these solutions since the software

and hardware that can handle the integration is maturing. I expect to sell a lot more integration this year than last year."

Many of the above responses were cited by integrators who also answered they installed a large number of cameras in an average system. We feel this is an important aspect of interpreting this data. Customers with larger camera counts are more likely to have more stringent security requirements than smaller counterparts. These customers are more likely to have devoted operators monitoring these systems and the efficiency improvements gained by integrating these systems are more likely to be appreciated.

## **Conclusion**

Integration of electronic door access control systems are likely to remain a niche integration for the near future. Until the value of this integration becomes more apparent, the cost of integration drops, or organic demand grows, this functionality will be valued by a fringe of larger end users and the integrators that support them.

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