Protection and Care of Enterprise-wide IP Surveillance and Security Systems

How Managed Professional Services Can Be a Real Life-Saver

*An **Applied Video Solutions** Managed Services Advisory Guide*

Who should read this guide:

- This guide is intended for CIOs, CTOs, and IT directors faced with the challenge of managing complex, widely deployed HD Surveillance and Access Control operations. Operational budget holders will also benefit from some of the financial messages in the guide.

- It will be of particular interest to all C-Level executives, VPs, Managers and Directors whose professional responsibility is involved with the safety, security and performance of the enterprise.

Advice offered about:

- Next Generation IP Video Surveillance Architectures

- Managed Services as a Critical Component

- Comparison of in-house and outsourced approaches

- Getting it right using Managed Professional Services

AVS

This Guide offers a look at Next Generation IP Video Surveillance and Security Systems and the role of Managed Services in Driving Enterprise Performance

Protection and Care of Enterprise-wide IP Surveillance and Security Systems

An Applied Video Solutions Managed Services Advisory Guide

Contents

Applied Video Solutions

Applied Video Solutions

Providing the critical mix of advanced hardware, proprietary software and applied professional services, ensuring enterprise safety and security, worldwide.

Corporate Overview

Applied Video Solutions is a professional services and systems integration firm specializing in IP Video Surveillance and Security Management Systems for Fortune-class companies.

Applied Video also offers unique Managed Solutions that enable seamless enterprise surveillance for geographically distributed locations.

We assist our clients in all phases of the surveillance network deployment lifecycle, ranging from strategic planning through system design, implementation and training.

Our Contributors

Dmitri Shimolin – Co-Founder and CEO

Résumé points and credentials.

Igor Shimolin – Co-Founder and Chief Technical Officer

Résumé points and credentials.

### Bryan Whittington – Chief Solutions Architect

Résumé points and credentials.

Applied Video Solutions Next Generation Architecture

Organizations can now benefit from advances in digital video technology and real-time analytics to ensure an enterprise-wide safety and security environment, worldwide.

Applied Video's next generation architecture is an IP-based enterprise-wide surveillance and security environment with real-time performance analytics. With next-generation architecture, organizations get the best reliability, flexibility and performance, resulting in a low cost of ownership and dramatically improved return on investment.

This industry-defining architecture with real time analytics and reporting using unique, sophisticated algorithms enables a suite of managed services from Applied Video.
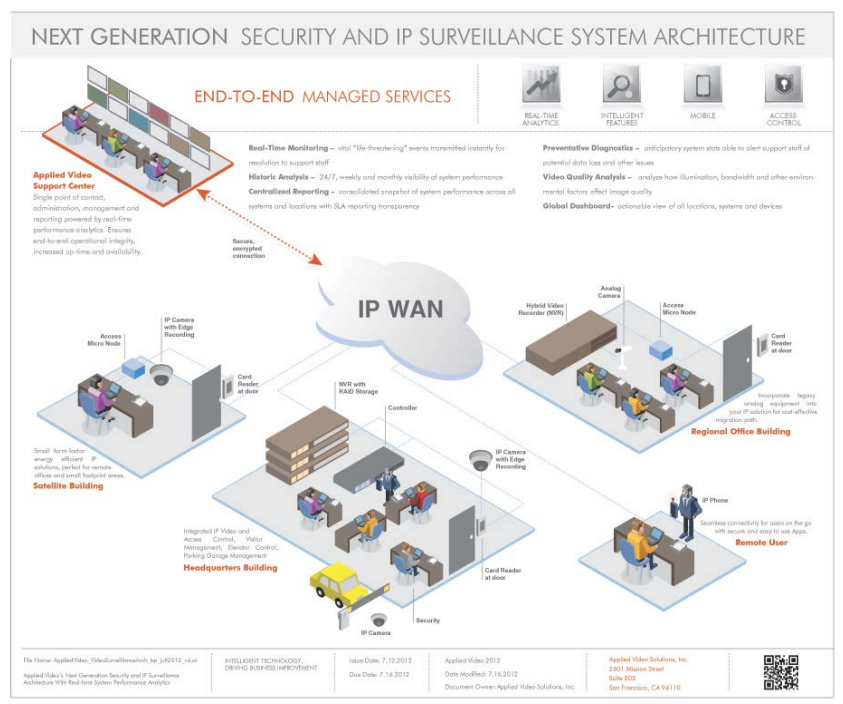
21st Century Approach to Enterprise-wide Security

- *Phenomenal Video Clarity* – Applied Video leverages the power of High Definition IP video to deliver superior system and forensic-level evidence quality with actionable information – better than was possible with traditional analog CCTV systems.

- *Best-in-Class Access Control* – Ideal for multi-site companies, a single-view interface enables a global, multi-site IP building access system to be managed from anywhere with very little effort. Moves, adds and changes can be implemented in just a few keystrokes.

- *Analytics-driven Performance* – Applied Video's first and only system health monitoring and diagnostics technology assures well-being and optimal performance of your IP security systems over time.

- *Increased Productivity* – From remote video monitoring to running exception-based reports across entire organization in a matter of seconds, IP solutions from Applied Video empower system users to accomplish more in less time.

- *Ease of Use* – An intuitive interface gives users control over complex system functions. Applied Video systems break the common 80-20 rule, enabling 80% of users to leverage 80% of system features.

- *Open Platform* – Applied Video systems integrate with products from world's leading vendors, without forcing customers into costly upgrades commonly mandated by proprietary vendors.

- *Expansion Capability* – IP solutions from Applied Video can be easily expanded, enabling quick rollout to new locations—whether a single branch office or a global enterprise network.

- *Smooth Migration Path* – Applied Video can guide your organization on an upgrade path to 100% IP solution, by integrating existing legacy analog systems and making the most of the investments you have made to date.

Why is 24x7 Managed Services Critical to Enterprise Safety and Security?

The sad truth is that many businesses do not much care about outsourcing managed services. The majority of businesses that do care are often either unaware of the best way to address the issue, or under the impression that their existing measures are enough. The end result is that vital services provided by the IT group are often ignored or misunderstood.

A significant proportion of the problems associated with Monitoring, Managing and Maintaining a complex video surveillance systems can be attributed to this basic reluctance—or inability—to take a firm grip of it.

As a result, very few businesses are adequately organized, and there tends to be a lack of effective planning behind their strategies. Correct processes and procedures are often missing, and there is little evidence of root cause analysis when things go wrong.

So it is not surprising that many businesses operate with a false sense of confidence that everything will turn out all right. In truth, however, they are risking a cycle of perpetual "break and fix" fire-fighting and "after the fact damage control" in restoring surveillance coverage after an unforeseen breach of the system.

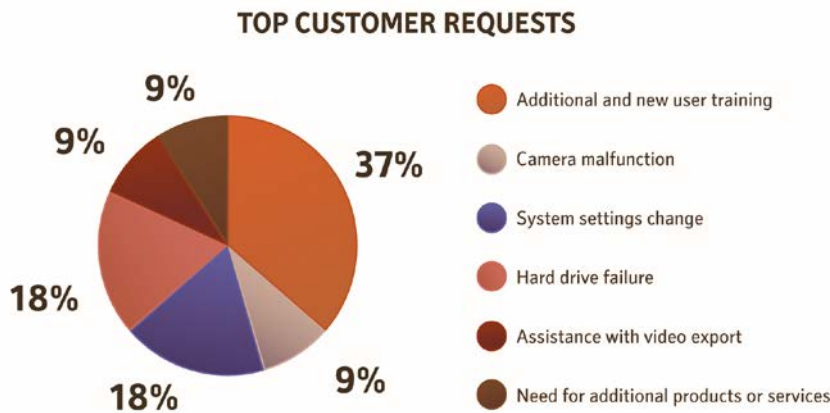## The Benefits of a Proactive Managed Services Approach

What businesses do care about is making profit and the quality of the service they provide to their customers. While video surveillance systems are often treated as necessary in many organizations, they only become of strategic importance in the case of a breach of safety or security occurs that could have been foreseen and avoided. Lack of Managed Services often leads to just such "after the fact" damage control.

Yet any interruption to service—whether IT-related or not—will affect profits, lower customer satisfaction, and even threaten the long-term prospects of the business.

In Applied Video's experience, those businesses that respond positively with a robust strategy for dealing with worst-case scenarios of surveillance system failure, can reap substantial business benefits.

Common Problems *Without* a Managed Services Program

- System performance degrading over time due to unattended systems and lack of routine diagnostics which can address component failures in a timely manner – eliminating costly after-the-fact damage control.

- Lack of adequate training for system users leads to lower system utilization which prolongs the payback period

- Lack of budgeted maintenance programs creates last-minute service calls and costly emergency service calls

- Exposure to risk due to data loss caused by malfunctioning equipment like hard drive failure or camera being inoperable, intermittently powered or providing degraded images.

TOP CUSTOMER REQUESTS

9%
9%
9%
37%
18%
18%
9%

- Additional and new user training
- Camera malfunction
- System settings change
- Hard drive failure
- Assistance with video export
- Need for additional products or services
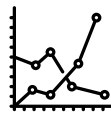
Break & Fix Approach vs. Managed Services

Signs that your Video Surveillance operations need to be improved

- Spiraling or unknown costs or total cost of ownership (TCO)

- Unknown operational and business risks

- Unknown or low levels of preventive maintenance

- No clear service-level agreements (SLAs) – or no SLAs at all.

- Undefined roles and responsibilities (i.e., lack of clear ownership)

- Lack of analytic reporting, monitoring and remediation

- Undefined operational processes

- Recovery issues due to failed backups or broken ancillary equipment

Managing video surveillance operations can be a daunting task. Businesses are often left with a simple choice: continue to passively manage in-house ("break and fix mode"), or seek the assistance of a system provider who offers Managed Services as part of an optimized solution.

The hidden costs and risks

Failure to budget for long-term service costs is the most common yet avoidable reason for inoperable and ineffective security and surveillance system performance. Even with best technology and products, lack of an ongoing care program will result in a cascading array of problems, potentially leading to costly repairs and hardware replacements over the life of the system.

Break & Fix Scenario	Managed Services Scenario
1. User checks on a security breach incident which occurred 1 day ago 2. Finds that the camera was not being recorded due to hard drive failure for a week 3. Contacts the service provider same day 4. Service provider orders replacement parts, lead time 2 days 5. Service provider visits the site to make repairs	1. Service provider receives an alert about a likely hard drive failure, 90% chance of failure within 2 mo 2. Customer is contacted and service visit is scheduled 3. Parts are ordered, eta 2 days 4. Part is replaced during off-peak business hours
Outcome: ✘ Original incident not resolved resulting in greater risk ✘ Frustrated customer ✘ Reactive last-minute service request ✘ Stress applied to organization ✘ Costly unbudgeted expenditure	**Outcome:** ✔ Risk is managed ✔ Cost is absorbed by the budgeted managed service contract ✔ Customer is happy with system performance ✔ Service provider retains a loyal customer and a long-term relationship
Downtime: 1 week	**Downtime: 1 hour**

Reactive vs. Proactive

A principal benefit to Managed Services is freedom from the unpredictable and costly "gotcha" scenarios resulting from unforeseen failures or security breaches that could have been avoided altogether. Total cost of ownership is reduced with positive impact on overall Return on Investment.

Break and Fix Approach	Managed Services Approach
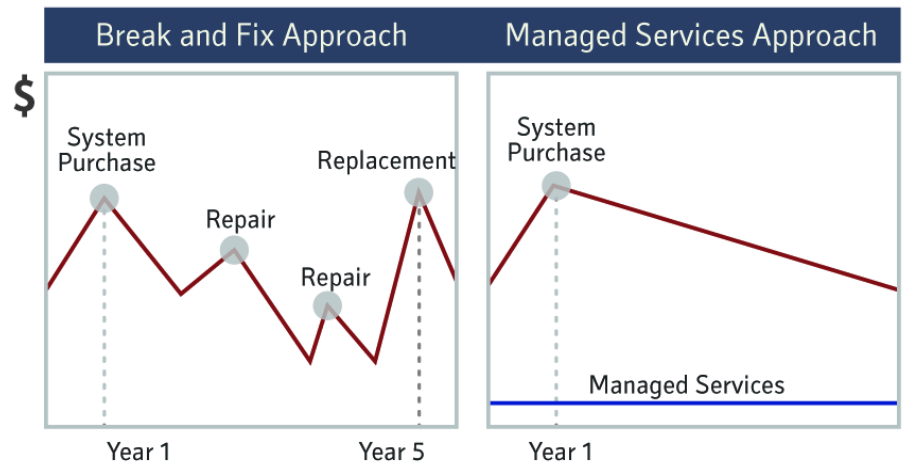
The Appeal of an In-House Solution

In some circumstances, an in-house surveillance system monitor will be attractive for a variety of reasons:

- **The perception that it will be cheaper.** Without conducting a thorough investigation of costs, there will be understandable concerns that obtaining outside assistance is more expensive than doing the job completely in-house.

- **Concerns over security and confidentiality.** Organizations are sometimes reluctant to hand access to their surveillance records over to someone else. Security is one of several considerations that may persuade a firm to keep video storage in-house or simply avoid obtaining planning assistance.

- **Basic reluctance to pursue outsourcing.** Cultural resistance to outsourcing is commonplace.

- **A desire to remain independent.** There is an element of risk attached to the formation of any business relationship. Some firms will be reluctant to accept this potential danger.

- **Anxieties over flexibility.** Some businesses may also fear a loss of flexibility because an outsourcer will assume some degree of operational control. There may be concerns that relinquishing even a small amount of control will inhibit the organization's ability to react to changing business conditions.

Applied Video Managed Services

"Knowing that a camera is 'ON' is one thing. Learning the camera was 'ON' but out of focus, pointed in the wrong direction, or has been intermittently powered is another thing.

"AVS Managed Services' and Software Analytics provides end-to-end visibility of the entire system…eliminating the risk of after-the-fact damage control caused by lack of insight on the true measures of surveillance system performance."

Complete Systems Lifecycle Management

An Anywhere, Anytime "Always On" Service, Safety and Security Environment

Applied Video Managed Services Support Center

The AVS Managed Services Support Center provides a single point of global administration, management, oversight, and control of customer IP-based surveillance systems, *worldwide*.

Real-time analytics and proactive alert-based reporting provides complete of end-to-end visibility system performance—*down to the individual device level. This means every camera, server, hard-drive and access control point on the network is monitored, analyzed, managed and optimized for peak enterprise performance*.

- *System Health Monitoring* – vital system performance indicators are monitored using proprietary real-time analytics suite of software designed for proactive and anticipatory service.

- *Software Updates* – systems are updated with latest software releases automatically "pushed" to include new upgrades, features and enhancements.

- *24x7 "Always On" Help Desk* - Knowledgeable staff ready to handle proactive system alerts, troubleshooting and problem resolution issues; frequently *before* they can affect system performance.

- *Remote Support* – significantly reduce time to resolve an issue through secure remote access. 90% of support issues are resolved within 15 minutes of remote support session.

- *On-Demand Training* – new system users benefit from proven and structured system training services and online troubleshooting databases.

- *Equipment Loaners* – vital system components like servers and controllers are made available while original equipment is being repaired

- *Preventative Maintenance* – routine cleaning and diagnostics are scheduled to ensure optimal system performance and maximum equipment lifespan

- *Extended Warranty* – with proper care and preventative measures in place equipment warranty may be extended up to 5 years

Intelligence Behind Managed Services

The role of real-time performance analytics in efficient and proactive service delivery.

An industry-defining feature set:

- *Global Dashboard* – see real-time performance of all your security systems across your organization regardless of physical location.

- *Web-based Interface* – access vital information about system status and operation securely from anywhere using a common web browser.

- *Hardware Analytics* – keep an eye on hard drives, memory, CPU, and more.

- *Environmental Analytics* – closely monitor temperature variances and extend the lifetime of your investment.

- *Preventative Diagnostics* – proactively learn about high likelihood hard drive failures and increase the chances of preventing data loss and downtime.

- *Visual Verification* – verify whether image quality is up to your standards – verify video loss, out-of-focus, glare and other common image quality issues.

- *Reports* – gain insight by aggregating information about your systems across organization.

- *Equipment Agnostic* – monitor majority of COTS hardware and open platform systems on the market today.

- *Cross-Platform Compatible* – monitor all security systems whether they run on Windows or Linux.

- *Appliance or Hosted* – choose between two widely adopted deployment models.

- *SDK Integration* – develop tighter integration with your favorite security applications.

- *ONVIF compliance* – Freedom from obsolescence and an open migration path.

Analytical Reporting

Pre-emptive Alerts and System Health Monitoring

Unique Applied Video software algorithms pinpoint trouble conventional systems fail to see.

At the first sign of trouble, special analytical reports are automatically generated for immediate, pre-emptive action and resolution – putting an end to costly, after-the-fact damage control, *forever*.

"Anticipatory" proactive reports to automatically alert you when there's a system problem or an issue of quality or performance.

While an older system can indicate a camera is "ON", only AVS Managed services can tell if that same camera is out of focus, pointed in the wrong direction, or perhaps intermittently powered in the previous days.

The same is true of of system-critical components such as hard drives, routers and even wireless devices on the network. Often these hidden but critical components can fail *without being detected* – becoming apparent only after a catastrophic breach of safety or security.

With AVS GreenGuard analytics, all critical components are monitored, analyzed and protected from unforeseen failures common to other systems.

Global Dashboard

Monitoring Dashboard displays real-time system health status changes providing a connection between dedicated support center staff and entire client IP video and security system deployments. Device-level alerts instantly escalate to account-wide indicators raising awareness and bringing to the surface issues previously not seen.
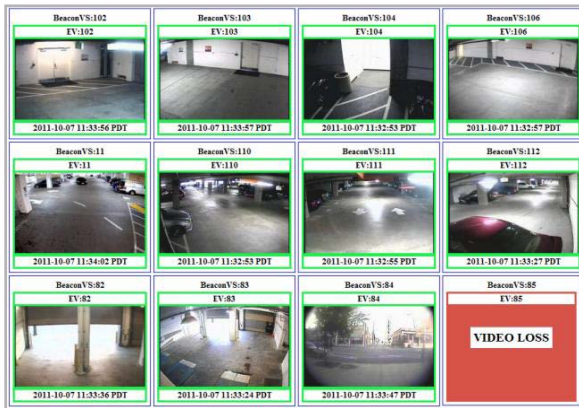
Global Cameras Report

Cameras Report effectively provides real time and historic audit of an entire analog and IP camera inventory beyond the traditional CCTV and network monitoring tools. Purpose-built image analysis and video streaming software algorithms are used to monitor camera performance across multiple physical locations and present a consolidated system-wide snapshot.
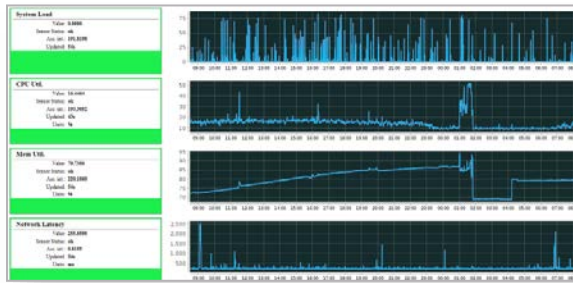
Real-time analytics

Vital hardware, software and environmental system elements are continuously monitored and analysed using Real-time Performance Analytics. As a result complex system diagnostics are more efficient and further performance enhancements made possible based on real site-specific data.

Video Storage Reports

Data loss due to hard drive failure may be avoided or minimized with the use of Video Storage Reports. A wide range of common-off-the-shelf hard drives across different and multiple DVRs and NVRs are regularly tested with results made available via searchable user interface.

The Benefits of Managed Services

- A strong, reliable Managed Services component will bring a range of benefits, which may resolve the concerns listed above:

- Greater visibility of TCO and the assurance of a fixed price. Typically, the budget manager will be unaware of the total cost of ownership (TCO) of an in-house solution. Consequently, the manager will be unable to forecast ongoing costs. However, an outsourcer can set a pricing schedule based on fixed monthly costs. Even better, this may well prove less expensive than existing methods.

- Guarantees on service levels. It is often difficult to establish, adhere to, or even measure operational levels internally. Strict SLAs provided by an outsourcer will enable management to learn exactly how effectively the organization's surveillance and security operations are performing.

- Greater focus on your core business. Managed Services will allow an organization to focus on its core competencies, thus allowing resources to be redeployed to more central concerns of the business.

- Stronger expertise in supporting your surveillance and security network. Many organizations do not have full knowledge of network management processes. Neither do they have a deep understanding of managed services analytics technology or the special software algorithms that make iit so effective. An outsourcer will be able to improve service levels by efficiently applying best-of-breed solutions with strong service management processes.

- A more structured approach to critical business data. The financial repercussions of surveillance data loss or downtime can be devastating. An experienced outsourcer can minimize the risk by helping the business identify and effectively back up its critical business data.

- In March 2007, Applied Video research found that best-in-class organizations are monitoring and measuring controls and procedures to protect sensitive data on a weekly basis. In contrast, the average business only examines these controls and procedures every 176 days.

- A heads-up on RTOs and RPOs. (The board will gain reassurance from an outsourcer with in-depth experience working out RTOs and RPOs. An understanding of RTOs and RPOs will allow the business to choose between gradual recovery, intermediate recovery, and immediate recovery.

- An understanding of the importance of compliance. demands will only increase in the years ahead. It is important to have experts onboard to deal with these growing concerns. Applied Video's Bryan Whittington comments: "Organizations are usually aware of the legislation, but they do not necessarily know how to configure or manage surveillance systems to meet the various requirements."

- Assistance with the auditing process. When an audit is conducted, it is crucial that everything is in place and up to date. A third-party outsource provider can offer the skills and experience needed to help ensure that audits run smoothly.

- Greater accountability and help in the decision-making process. Reporting capabilities of in-house systems are generally poor, which can limit damage accountability. An outsourcer, however, should be able to produce effective reporting of their services. This should be scalable from operations to business owners, and it should relay pertinent information based upon roles. However, an outsourcer's customers should ensure that they have a method of independently verifying the reported information.

Ensuring Cost-Effectiveness

Choosing a Video Surveillance Managed Services partner with a strong industry reputation should guarantee an improved service and level of enterprise performance.

In many cases, businesses taking control of their own system monitoring services are hugely wasteful of their resources, simply because they lack the necessary processes and best practices. This inefficiency invariably has an impact on cost.

Before agreeing to work with an outsourcer, it is important to understand how much you are currently spending on surveillance systems operations. In our experience, organizations spend much more on "break and fix" and "after the fact damage control" than they realize—and, in many cases, much more than necessary.

"Customers rarely know the total cost of ownership of running and maintaining an enterprise-wide HD surveillance network," says Applied Video's Bryan Whittington. "There is a misconception that the cost managing and monitoring a video surveillance system is limited to the salaries of the people actually employed for these purposes. In reality, you also need to consider the cost of a "break and fix" approach in addition to upgrading, the cost of training, and the cost of managing high-impact failures or even catastrophic breaches of enterprise safety and security".

Conclusion

Uniquely Qualified: The Managed Services Advantage

- Optimize system performance through real-time analytics and professional services

- Make the most of investment made in security and safety across the enterprise

- Prolong equipment life-span through preventive intervention and maintenance

- Avoid obsolescence through currently available updates and technology advances

- Consistent system performance through a planned and budgeted program

- Increased competitive position and cost-efficiencies through service-task delegation

Applied Video Solutions

Managed IP Video Surveillance and Security Solutions

Applied Video Corporation is a professional services and systems integration firm specializing in Digital Video Surveillance and Security Management Systems for a range of companies including Fortune-class enterprises. Applied also offers unique next-generation architecture that enables seamless enterprise surveillance for geographically distributed locations. We assist our clients in all phases of the surveillance network deployment lifecycle, ranging from strategic planning through system design, implementation and training.

APPLIED VIDEO SOLUTIONS, INC
2601 MISSION STREET
SUITE 803
SAN FRANCISCO, CA 94110

PHONE   415.824.1717

SALES   *sales@applyvideo.com*

SUPPORT   *support@applyvideo.com*

www.applyvideo.com