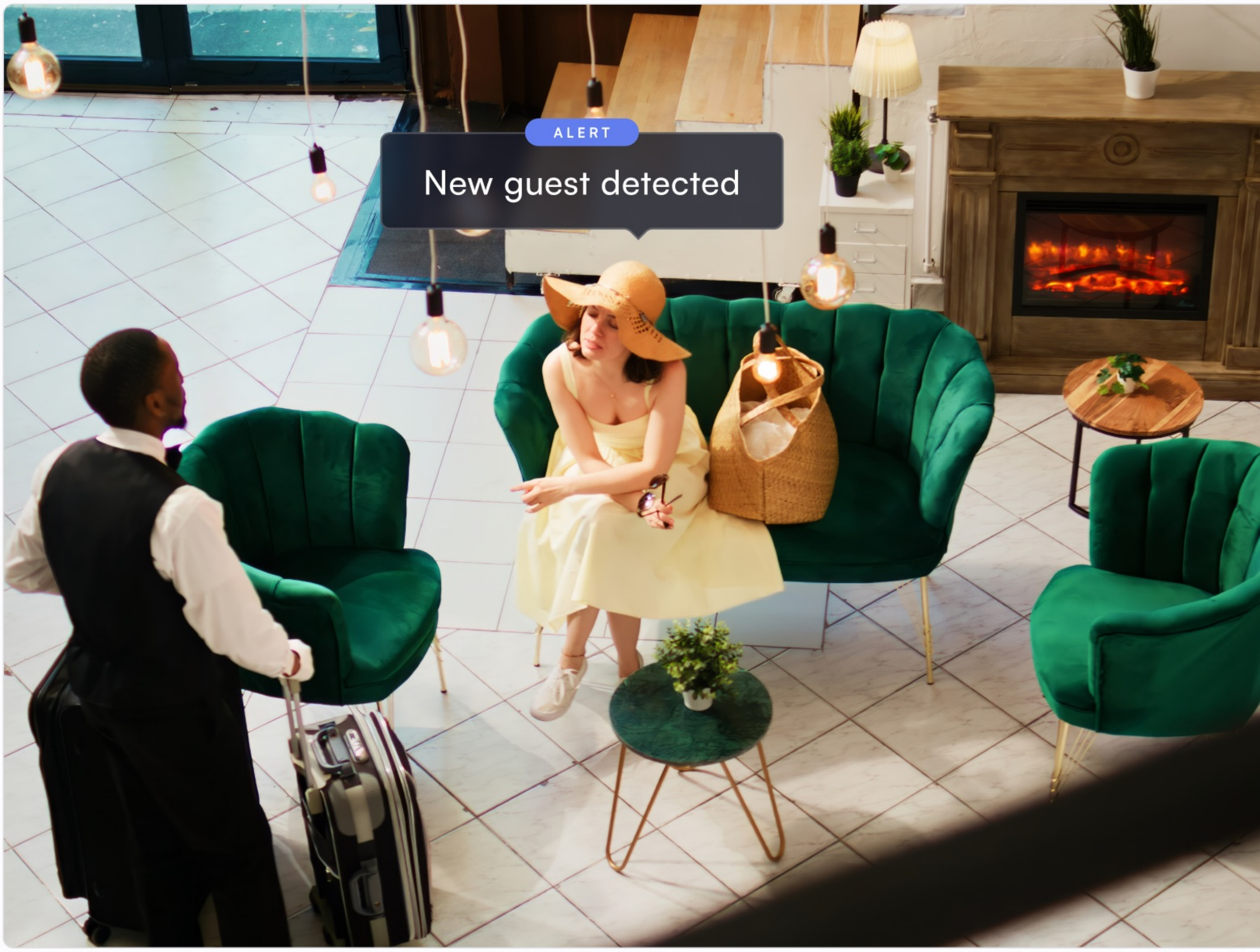


Lumana

Securing the guest experience in 2025 and beyond

How AI-powered surveillance solutions fortify hospitality security

Introduction

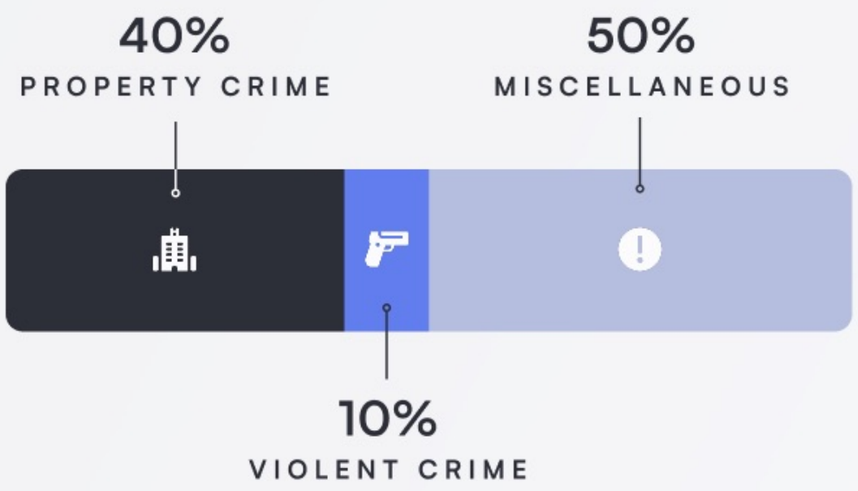
In the hospitality industry, guest or patron satisfaction hinges on more than amenities and service—it depends on a sense of safety and security. As both cyber and physical threats escalate, ensuring a secure environment for guests and employees has become an urgent, non-negotiable priority.

Over the past decade, major security breaches have made headlines and revealed the vulnerabilities in hotel systems. For example, the 2018 Marriott breach affected up to **500 million guests**, while a malware attack on IHG in 2016 compromised over **1,200 hotels**. In addition to reputation fallout, companies like Hilton have faced financial consequences, including a $700,000 fine[1]. A study involving 2,000 adults found that **1 in 20 diners** admitted to leaving a restaurant without paying. Additionally, **25% of respondents** indicated they would consider doing so if they had to wait more than 30 minutes for the bill[2]. These incidents highlight the serious risks of neglecting security in financial terms and eroding guest or patron trust. For many, a compromised establishment is no longer an option.

At the same time, the threat landscape extends beyond digital borders. Physical safety concerns—trespassing, vehicle theft, unauthorized access, and even active shooter situations—are rising across hospitality properties in the United States. Parking lots and garages, in particular, are frequent sites of criminal activity, significantly contributing to the perception of insecurity among guests. Establishments that have taken proactive steps, such as installing modern surveillance systems and employing visible security personnel, have seen a substantial reduction in these incidents and a marked improvement in how safe their guests feel.

The graphs below illustrate findings related to physical security threats in the hospitality sector, drawn from 2023 data. It underscores the prevalence of crime on hotel property and the effectiveness of preventive measures in reducing such events.

Breakdown of hospitality threats



The impacts from security initiatives

62%
Incident reduction with security measures

77%
Guests feeling safer with security present

These incidents are not isolated; they represent a growing pattern that demands decisive and comprehensive action. The psychological impact of security concerns, combined with rising guest or patron expectations for safety, makes it clear that physical and digital security investments are essential. Modernizing outdated surveillance systems, implementing intelligent monitoring solutions, and creating a visible security presence are not just risk management strategies—they are vital components of guest experience and brand loyalty.

To remain competitive and credible, hospitality leaders must recognize that trust is built on service excellence and safety. In today's environment, security is a service.

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[1] "Cyber Security in the Hospitality Industry: Protecting Your Hotel and Guests." *SiteMinder*, April 23, 2025, https://www.siteminder.com/r/cyber-security-hospitality-industry/.
[2] Fox News. (2024, February 5). 1 in 20 diners has left a restaurant without paying, study finds. Retrieved from https://www.foxnews.com/food-drink/1-in-20-diners-has-left-a-restaurant-without-paying-study-finds

Is traditional video security still effective?

Many hospitality establishments rely on conventional closed-circuit television (CCTV) systems for security. These systems typically record footage that can be reviewed after an incident. While providing basic surveillance functionality, traditional video security systems lack critical features that can significantly impact the outcomes of security threats in the fast-paced and people-centric hospitality environment. Conventional systems are also reactive rather than proactive in threat management. Staff can waste valuable time searching through footage, while the system lacks the features and real-time response needed to address security threats effectively and prevent escalation.

As of early 2025, a large percentage of establishments reported using security cameras to monitor their premises[3]. However, without AI integration, these systems provide limited proactive capabilities in areas like identifying suspicious behavior, detecting unauthorized access, or responding to emergencies in real-time.

[3] SNS Insider. (2024, December 13). Video Surveillance Market to reach USD 149.5 Billion by 2032, Driven by Government Initiatives and Technological Advancements. GlobeNewswire. Retrieved from https://rss.globenewswire.com/fr/news-release/2024/12/13/2996834/0/en/Video-Surveillance-Market-to-reach-USD-149-5-Billion-by-2032-Driven-by-Government-Initiatives-and-Technological-Advancements-Research-by-SNS-Insider.html

The various liabilities of analog CCTV

70%

Poor Identification

Analog resolution is often insufficient, leading to **over 70% of incidents with unusable footage for identification.**

50%

Limited Analytics = Missed Threats

Systems lacking intelligent analytics have **a 50% lower rate of proactive threat detection.**

2-3x

Costly & Inefficient Upgrades

Analog upgrades can cost **2-3 times more per camera** for comparable coverage to new IP deployments.

15%

Vulnerable Data

DVRs are susceptible to physical tampering, with **an estimated 15% of security footage lost or compromised annually** from such systems.

THE RESULT?

These liabilities create numerous security vulnerabilities and inefficiencies. Hospitality organizations who use analog systems experience **up to 280% higher burglary rates** compared to those with modern IP surveillance. (Source: ASIS International)

Preventing incidents and escalation

To understand the vast difference between traditional and AI security systems, let's look at the timeline for incident detection. Consider the following example:

A guest or patron reports a suspicious person loitering near the front entrance. Hours later, the security team reviews the camera footage and notices the individual harassing other guests. ***Why didn't the security camera deter the individual or alert staff in real time?***

Under traditional surveillance, individuals may feel emboldened to engage in disruptive or criminal activity, knowing they can escape before anyone reviews the footage. The opportunity to prevent escalation is lost without real-time alerts or the ability to identify suspicious behavior patterns.

Traditional

This common scenario highlights a significant flaw in traditional CCTV systems: security staff cannot monitor every location simultaneously. They are also vulnerable to human error, fatigue, and distraction. For many establishments, footage is only reviewed after a guest complaint or incident report, making the system reactive rather than preventative. In these situations, a standard security system can only record incidents, not actively deter or prevent them in real-time.

Artificial intelligence

On the other hand, AI surveillance offers real-time detection of various triggers relevant to hospitality: unusual loitering, unauthorized access to staff areas, suspicious object detection (e.g., unattended bags), and even potential signs of distress from a guest or employee. This allows security teams to act right away. In the previous example, an alert could notify security immediately when a camera detects unusual loitering, prompting an immediate response via security dispatch or on-site staff intervention. This technology can save significant costs by minimizing disruptions, preventing security breaches, and improving guest or patron safety and satisfaction.

Traditional video security workflow

1. **Inaccurate detection** — Suspicious activity is often missed due to limited detection capabilities.
2. **Manual review** — When events occur, investigations require manual work, taking hours to complete.
3. **Slow alert dispatch** — Alerts can be inaccurate or take minutes to trigger, affecting resolution.
4. **Delayed response** — Incident response is reactive, dissolving organizational trust and resources.

AI video security workflow

- **Real-time, AI detection** — Identify specific events the moment they occur. (0:00 - 0:01)
- **Instant notification** — Instant alerts via email, SMS, or push notification. (0:01 - 0:03)
- **Automated response** — Respond immediately via alert action workflows. (0:03 - 0:05)

In cases where deterrence fails, like a dispute in the lobby or a guest exhibiting erratic behavior, AI live alerts can trigger alarms or notify nearby staff to intervene and help de-escalate the situation promptly, ensuring guest comfort and security. Some hospitality AI solutions, such as Lumana, can recognize various activities and behaviors relevant to security and guest or patron safety, helping to avoid negative experiences and potential security breaches.

Emergency response and communication

Unfortunately, not all threats can be deterred. When an active shooter situation, a medical emergency, or a large-scale evacuation is required, reaction time and live communication become critical for guest and employee safety.

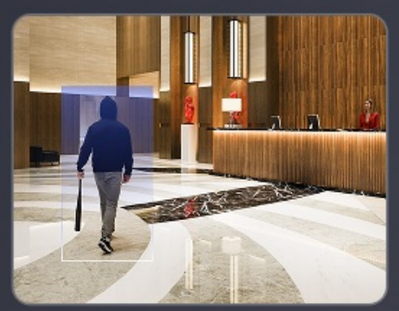
Traditional

Standard surveillance relies on human detection and manual communication via radio or phone with responders, creating critical delays in escalation and response at a time when every second counts, potentially impacting guest and employee safety.

Artificial intelligence

In contrast, AI systems can instantly recognize threats (e.g., a person displaying aggressive behavior, a large group gathering unexpectedly, a gun being drawn) and alert staff (even via mobile devices). If needed, AI systems can facilitate one-button contact and live footage sharing with security teams or even emergency services. This allows staff to report emergencies faster and more thoroughly than traditional systems, potentially mitigating risks to guests and the property.

Threat detection and response with AI-powered systems



Detect
AI continuously monitors, allowing organizations to detect threats as soon as they appear.

Alert
Real-time notifications are sent to security staff in <1 second for immediate incident response.

Respond
Automated actions trigger to deter threats while first responders are on route.

Investigate
Users can quickly find, save, and share footage to assist first responders or create incident reports.

Peace of mind

Safety is essential for maintaining guests' trust and satisfaction and employees' well-being. Depending on their functionality, video security systems can inspire different confidence levels. To feel truly comfortable and secure, guests or patrons want to know that precautions are in place to protect them at all times.

Traditional

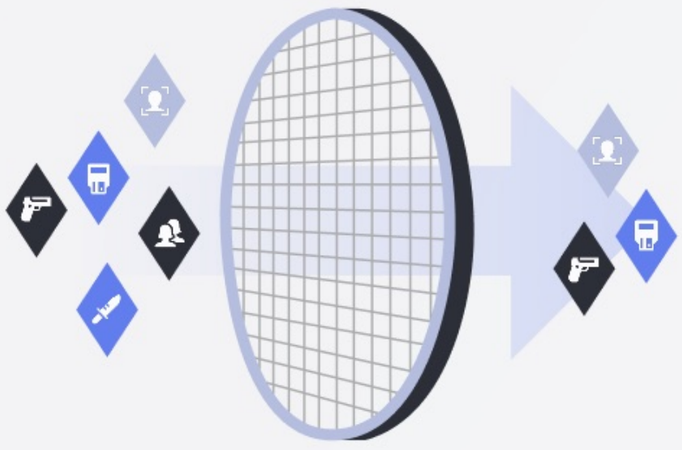
Guests or patrons may perceive traditional security cameras primarily for post-incident investigation rather than active prevention. Unless 24/7 active monitoring is guaranteed and communicated, guests may not feel entirely secure, even with the presence of cameras. Continuous human surveillance across vast properties is often impractical, limiting, and potentially undermining guests' peace of mind.

Artificial intelligence

Video AI enables 24/7 monitoring across all critical guest or patron and employee areas — lobbies, hallways, parking lots, and even potentially identifying safety hazards in common areas, far beyond human capabilities. It can monitor suspicious activity and unauthorized access to restricted areas, as well as trigger alerts for timely intervention. Communicating these capabilities can reassure guests or patrons that their safety and security are top priorities, enhancing their overall experience and trust. It also gives employees confidence that they are working in a safe environment.

Reducing security events with AI-powered solutions

Traditional



Events are being missed and still occurring

- ✕ Limited protection
- ✕ Reactive
- ✕ Potential anxiety

AI-powered

Events are being proactively identified and addressed

- ✓ Comprehensive security
- ✓ Proactive prevention
- ✓ Peace of mind

Ease of setup and use

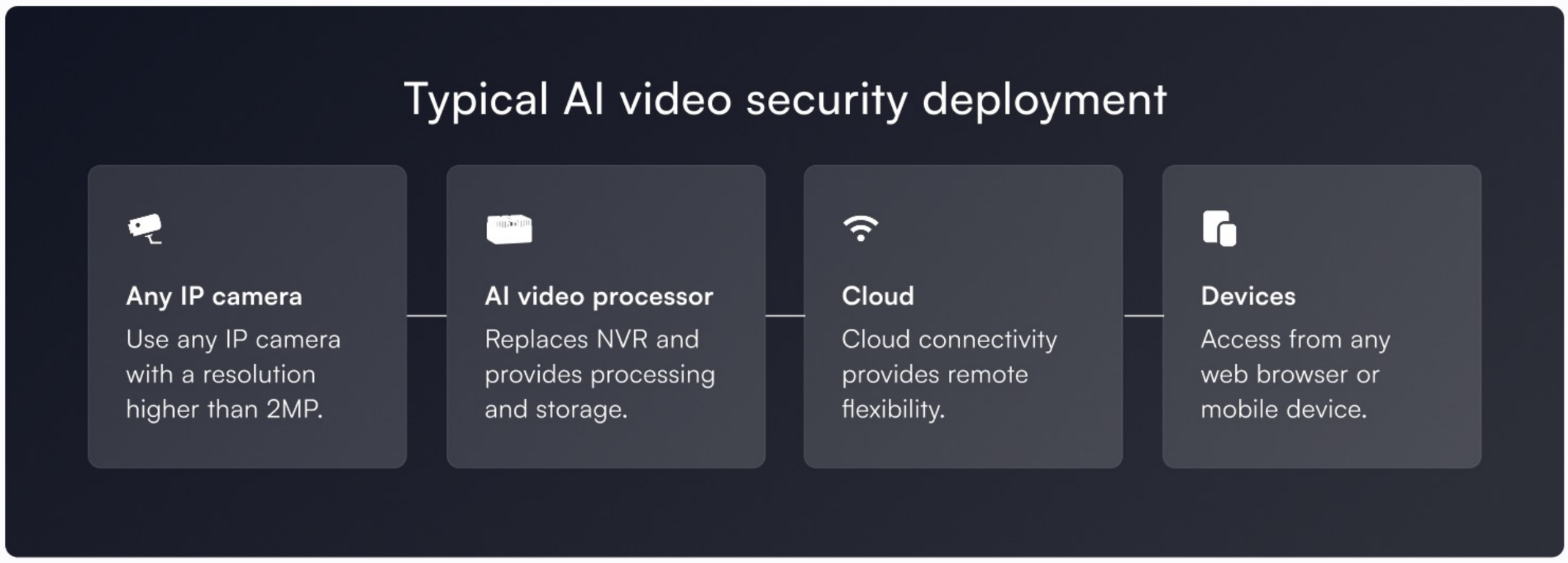
Security systems often come with hidden costs. If a system is technically complex or lacks an intuitive interface, it can incur costs in employee training and operational inefficiencies. An effective video security system should simplify processes, not complicate them, allowing staff to focus on guest or patron service and security personnel to respond effectively.

Traditional

Standard systems require installing and maintaining traditional network video recorders (NVR) or digital video recorders (DVR). These systems often require regular manual updates and hardware maintenance, and can become outdated relatively quickly. Searching for specific footage, such as to review an incident, can be time-consuming and resource-intensive, potentially delaying resolution and impacting guest satisfaction.

Artificial intelligence

AI security systems can often integrate with existing camera setups, simplifying deployment. Cloud-based or hybrid-cloud solutions offer user-friendly interfaces, often including automatic updates and remote management capabilities. Intelligent search functionalities within AI systems can significantly reduce the time needed to find relevant footage, allowing staff to address guest or patron concerns or security incidents more efficiently.



Conclusion

AI can transform hospitality security by enabling real-time threat detection, faster responses to guest or patron safety concerns and security incidents, and providing advanced, user-friendly features. These systems offer proactive assistance in preventing negative guest experiences and security breaches while improving employee safety and operational efficiency. That extra layer of intelligent protection can significantly increase guest or patron trust, satisfaction, and the overall security of the hospitality environment. As AI technology evolves, hotels, restaurants, and resorts that adopt these systems early can significantly improve guest, patron, and employee well-being and operational excellence.

Background

For more information, visit https://www.lumana.ai/.

Today's hospitality physical security systems are often limited in providing proactive insights and real-time awareness. Lumana challenges this by augmenting existing security cameras with proactive AI that delivers near-human-like perception to help teams see critical events, understand the full context of any situation, and respond with unparalleled speed and precision to ensure guest safety, security, and satisfaction.

Lumana is on a mission to empower hospitality organizations by discovering the value of their visual data to enhance security and safety, streamline operations, and enable immediate response when it matters most.

This whitepaper is informational only and should not be used as a specific security plan for your property.