



# VIDEO ANALYTICS

AVIGILON

## Sharper. Smarter.

At Avigilon, we enable our customers to be sharper and smarter with an end-to-end solution that helps them see what once could not be seen. By making the visual actionable, we give our customers the intelligence to act, not react.

**Sharper** | Effective video surveillance demands the clearest, sharpest, high resolution images to maximize situational awareness – with simultaneous persistent area coverage and detailed image interrogation – all delivered while taking up minimum bandwidth and storage.

The Avigilon end-to-end system makes optimal use of client computing resources to deliver the scalability, decoding, bandwidth and storage to handle HD – without sacrificing resolution.

**Smarter** | Video surveillance should include intelligence in monitoring, where the incorporation of video analytics into surveillance can be the difference between preventing an incident before it happens and dealing with the incident in its aftermath.

**Sharper and smarter** | Our entire system is intelligently integrated to enable the fastest, most appropriate response to any incident.



“A wealth of information creates a poverty of attention.”

– *Herb Simon,*  
*the father of artificial intelligence*



## Smarter: Proactive Protection

### ***Smarter: proactive protection***

Rather than using video surveillance strictly to search for evidence after an incident has occurred, video analytics supplies the intelligence to evaluate what is happening in real-time and provides alerts to stop the incident before damage is done.

### ***The barrier of attention spans***

As the content and information we consume has grown increasingly abundant and immediately available, our attention spans have become challenged to maintain focus on the task at hand. Similarly, when faced with an environment where scene changes or movement are minimal, our propensity to tune-out increases significantly. In the security space, studies have shown that after 20 minutes, personnel watching a video scene on a monitor will miss up to 95 percent of all activity happening on screen. Poor image quality accelerates the decrease in attention span, while viewing twice the number of cameras further degrades human concentration by a factor of two. How can we combat our innate inability to focus and monitor repetitive, uninteresting stimuli?

### ***The Avigilon value***

Avigilon's high definition video analytics solution combined with advanced video pattern detection technology addresses human attention span and target identification challenges in four ways:

1. Advanced video pattern detection technology filters detection for known objects
2. Highly accurate object detection provides users only with alarms that are relevant
3. Appropriately deployed high resolution cameras reduce total camera count, increasing the operator's target identification ability and reducing total cost
4. High definition video produces images that are rich in detail, providing the evidence required to take appropriate action (event prevention tool)

# Avigilon Self-learning Analytics Technology

## **Pattern-based detection**



*Instead of notifying users on all movement in the scene,*



*pattern-based learning detects only the person.*

With a backbone built on high definition video, Avigilon offers an analytics solution that is unparalleled in the industry. Video analytics with high definition imaging ensures a higher degree of object detection accuracy, while providing superior image detail that delivers the evidence required to take appropriate action. Through the use of high definition video analytics, pattern-based analytics algorithms and teach-by-example capabilities, Avigilon is leading the industry in providing preventative protection through superior video analytics technology.

## **Avigilon high definition analytics**

Unlike standard industry analytics solutions that analyze in standard definition, Avigilon utilizes its knowledge in managing high definition video to analyze in full HD resolution, without any encoding or loss of quality – resulting in far greater accuracy and a higher level of protection to keep your assets safe and secure.

## **Greater identification accuracy**

Avigilon's analytics solutions provide a higher degree of accuracy in object notification, due to our patented technologies. Avigilon's *pattern-based* technology is able to accurately recognize the movements and characteristics of people and vehicles while ignoring any activity that isn't relevant to a scene. *Teach-by-example* technology allows

users to provide real-time feedback about the accuracy of alarms to refine the device's self-learning capabilities. These two technologies, combined with the HD quality of video footage, results in far greater accuracy and fewer false alarms, ensuring users are only getting alerts that are relevant to them, with minimal ongoing maintenance costs.

## **Fast and easy to install**

Underpinned by the self-learning capabilities of Avigilon's analytics technology, our HD cameras and Rialto™ analytics appliances are able to instantly detect and learn the surrounding scene upon initial set up, adapting to changes without manual calibration – resulting in a whole new level of installation ease not before seen with analytics solutions.

## **Detailed pre- and post-incident protection**

The combination of instant and accurate object detection and classification alerts, with the identification performance of high definition video, provides users with an unmatched level of protection to keep both personnel and assets safe.

# Avigilon Control Center



Avigilon Control Center (ACC) is the industry's most powerful video management software, enabling users to view and search through their high definition footage to find scene changes, missing objects and events – all through a simplified and easy-to-use interface. Built from the ground up to specifically manage high definition video, Avigilon Control Center delivers superior image detail and gives you full control over your high definition video surveillance playback, allowing you to quickly retrieve evidence to speed-up response times and investigations.

## ***Automated search***

Avigilon Control Center uses the same powerful analytics technology to intelligently search for events that you specify, helping you find the video you need quickly.

## ***Easy integration with Avigilon HD cameras and Rialto™ analytics appliances***

Avigilon Control Center integrates directly with our Rialto™ analytics appliances and HD cameras, enabling users to configure, stream and manage all analytics intelligence and notifications directly through the ACC interface.

## ***Audio talk-down capabilities***

Avigilon Control Center allows you to connect to external speakers for remote talk-down functionality to provide additional intrusion deterrence. This gives you the ability to accurately provide reliable protection for satellite locations that can't be monitored in person.

## ***Rules and alarms***

Avigilon Control Center allows you to apply analytics-based events as alarms and rule triggers, providing users with immediate notifications for suspicious activities that may be occurring.

Available in Standard and Enterprise. Learn more about our easy-to-use video management software at [avigilon.com/ACC](http://avigilon.com/ACC)

## HD Cameras



Avigilon's self-learning analytics technology is now available in our HD cameras, in 1 – 3 MP and 4 – 5K resolution. It delivers superior image detail for high definition imaging and more accurate analytics performance. With industry-leading analytics technology, Avigilon's HD cameras analyze in full high definition resolution to detect, track and classify suspicious objects, people and vehicles more accurately than ever before, providing a superior level of preventative protection of building perimeters, energy sites, car dealerships, construction facilities or any other area requiring a high-degree of protection of high-value assets.

*HD Pro camera with analytics*



*HD Dome camera surface pendant and in-ceiling mount*



*HD Bullet camera*

### **HD Pro**

4K (8 MP), 4.5K (12 MP), 5K (16 MP)  
(based on horizontal resolution)

- Embedded self-learning video analytics technology
- 5K is the industry's highest resolution single-sensor camera with analytics
- Wide scene coverage with simultaneous ability to zoom in for details, coupled with accurate object detection
- High Definition Stream Management (HDSM)<sup>™</sup> 2.0 technology with H.264 compression for maximum image clarity and minimum bandwidth and storage requirements
- Flexible SLR lens choices with focus and iris control
- Compatible with both EF and EF-S mount lenses for the best possible optical quality
- LightCatcher<sup>™</sup> technology for exceptional low-light image capture in color
- Onboard SDHC and SDXC card storage

### **HD Dome cameras**

Available in 1 MP, 2 MP and 3 MP resolutions

- Embedded self-learning video analytics technology
- Remote zoom and focus
- Optional integrated Adaptive IR technology
- ONVIF compliant
- Available in indoor, outdoor dome and in-ceiling and outdoor pendant mount options

### **HD Bullet cameras**

Available in 1 MP, 2 MP and 3 MP resolutions

- Embedded self-learning video analytics technology
- Delivers superior image detail in complete darkness using Adaptive IR technology
- Two lens options:
  - 3-9 mm and 9-22 mm
- Motorized P-iris lenses with remote zoom and focus

# Avigilon Rialto™ Analytics Appliances



Rialto™ I4



Rialto™ A4



Rialto™ R-Series

Avigilon's Rialto™ appliances are an all-in-one solution that allow users to add analytics capabilities to any existing IP or analog camera infrastructure. These appliances are easy-to-install and can provide superior analytics capabilities using your existing surveillance installation.

## **Rialto™ I4**

### *HD analytics for any IP camera*

The all-in-one Rialto™ I4 – inclusive of advanced video analytics, edge storage and event management software – enables users to easily and economically add advanced video analytics to any IP security camera without replacing the system. It's a 4-channel compact video analytics appliance that supports HD security cameras, and provides on-board storage options for days or weeks of storage.

## **Rialto™ A4**

### *Add analytics to any analog camera*

The A4 is an all-in-one device that provides a cost-effective way to easily add video analytics to existing analog video surveillance systems, allowing you to analyze and record up to four cameras per unit. The device's high density and small footprint make it easy to deploy and scale. There are no complicated per camera license fees or registration processes.

## **Rialto™ R-Series**

### *IP and analog flexibility*

Get powerful prevention from virtually any new or existing analog or IP surveillance system with the R-Series. The R-Series is a rack-mounted appliance for higher density deployments that include advanced video analytics, on-board storage and unified event management. Future-proof deployments with the R-Series' flexible mix-and-match blade design which supports IP and analog cameras and is easily upgradable as technology and security requirements change.

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