

# **Arecont Vision® Multi-Sensor Panoramic and Omnidirectional Cameras VS PTZ Camera Technology**



The Benefits of Multi-Sensor Cameras versus Legacy PTZ  
Camera Technology

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# Table of Contents

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• Executive Summary	4
• Introduction	5
• PTZ Technology	6
• PTZ Cone of Coverage	7
• PTZ Coverage Examples	8
• SurroundVideo Panoramic Multi-Sensor Technology	9
• Panoramic Multi-Sensor Coverage	10
• Typical 20MP SurroundVideo 180°	11
• Panoramic Coverage – 180° Example	12
• Typical 20MP SurroundVideo 360° Ceiling/Top View	13
• SurroundVideo Omnidirectional Multi-Sensor Technology	14
• Omnidirectional Coverage Examples	15
○ <i>Custom View</i>	15
○ <i>Intersection View</i>	16
○ <i>270° Corner View</i>	17
○ <i>Assembly Line View</i>	18
○ <i>360° Parking Lot View</i>	19
• SurroundVideo Integration with Leading VMS/NVR Systems	20
• Conclusions	21
• Recommendations	22
• Learn More	23

## Executive Summary

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The multi-sensor, multi-megapixel camera market that Arecont Vision pioneered in 2006 is today the fastest growing segment among professional surveillance cameras. Multi-sensor cameras bring many advantages for video surveillance over familiar Pan-Tilt-Zoom (PTZ) technology.

Multi-sensor cameras provide non-stop video recording. Streaming and recording of video across the entire field of view is never interrupted during operation, even when an operator digitally zooms in to a specific region of the scene. In comparison, a PTZ can only record and view the area in which it is currently focused, leaving the rest of the field of view unmonitored. Should incidents occur outside the area of focus, the PTZ will miss the action. A single multi-sensor camera is able to replace multiple PTZ and fixed-view cameras while providing enhanced coverage and non-stop situational awareness.

SurroundVideo panoramic multi-sensor cameras offer an optimized, fixed field of view of 180° or 360°. This simplifies setup and provides high definition non-stop video coverage of the entire scene. SurroundVideo panoramic cameras have been customer proven around the world, and are now in their 5<sup>th</sup> generation with continued feature and design enhancements.

The first omnidirectional multi-sensor megapixel camera to be introduced to the surveillance industry was the SurroundVideo Omni in 2014. This latest multi-sensor series offers adjustable coverage instead of a fixed view. All four sensors can be moved around the patented 360° track at setup. Each can be rotated on multi-axis gimbals to cover any scene continuously, ranging from 180° through to 360° or any viewing angle in between.

SurroundVideo cameras are integrated with the leading VMS (video management system) and NVR (network video recorder) products in the industry to provide the widest possible choices to security practitioners and end user customers. This is accomplished through the Arecont Vision MegaLab™ test and certification facility as a key component of our well-subscribed Technology Partner Program.

This white paper provides examples that illustrate the differences in coverage and use cases for multi-sensor cameras instead of PTZs, and explains the benefits and advantages of multi-sensor panoramic and omnidirectional multi-sensor cameras.

*For interactive information about Arecont Vision panoramic and omnidirectional technology and products, please visit the SurroundVideo family online at:*  
<https://www.arecontvision.com/landing-pages/surround-video/overview.php>

# Introduction

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Arecont Vision leads the way in megapixel video. We are a U.S. company with headquarters, research and development, and manufacturing operations in Glendale, California. We design and build award-winning IP network megapixel cameras that are customer-proven for video surveillance requirements around the world.

Arecont Vision chose from the beginning not to build Pan-Tilt-Zoom (PTZ) cameras. We believe the PTZ's time has passed, and that Arecont Vision multi-sensor cameras are the proven replacement.

Arecont Vision introduced the industry's first multi-sensor, multi-megapixel panoramic network cameras in 2006. The SurroundVideo series has continued to evolve with new features and performance improvements into their 5<sup>th</sup> generation today.

The first multi-sensor, adjustable-view (omnidirectional) camera was introduced to the industry by Arecont Vision in 2014. The SurroundVideo Omni series is now in its 3<sup>rd</sup> generation.

Multi-sensor cameras are now the fastest growing segment of the professional video surveillance camera market. Other camera manufacturers have begun to follow Arecont Vision's success, introducing their own first-generation copies of our multi-sensor panoramic and omnidirectional cameras.

Arecont Vision multi-sensor cameras remain superior as the result of multiple generations of R&D and refinement. SurroundVideo cameras offer ease of installation, smaller sizes due to miniaturization of components, a cyber-hardened architecture, integration with most leading VMS and NVRs, and are customer-proven in hundreds of thousands of installations around the world.

This paper examines the differences between multi-sensor and PTZ cameras, and the benefits that SurroundVideo panoramic and omnidirectional cameras deliver.

Please read on to learn more.

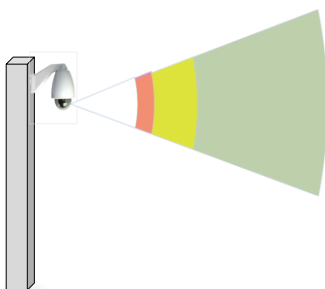


## PTZ Technology

There are several reasons for the original popularity of PTZ cameras. First, analog cameras delivered only 300,000 pixels. This in most cases was not sufficient for license plate or facial recognition. By focusing on and zooming into the area or object of interest, the PTZ could provide a closer view to the security operator. A second reason was to cover larger areas than a fixed view 300,000 pixel analog camera could reasonably cover.

PTZ camera technology has been used by the security industry for decades, beginning with analog cameras and moving in recent years to modern megapixel technology. Today's professional PTZs often offer a range of resolutions, features such as automatic motion tracking, and may include a quality optical zoom.

PTZs have often been used for surveillance of large spaces such as parking lots and shopping centers. The ability to zoom in on an area of interest, either via an operator or via a motion tracking program, is a popular feature. While the cost of a professional PTZ is often many times more than that of a single fixed-view camera, its advantage is in reducing the total number of cameras required for surveillance of a large area.



### Coverage example:

1080p PTZ, mounted 10' (3m) high with 40° field of view (FOV) – Note that optic coverage may vary with zoom

Red = 90ppf (Identification)

Yellow = 60ppf (Recognition)

Green = 30ppf (Detection)

Maximum range shown @ 117' (36m), FOV width at max = 64' (20m)

To learn about SituationalPlus, visit <https://www.arecontvision.com/landing-pages/situational-plus/overview.php>

### Pro:

- PTZs typically have a good optical zoom in professional-grade cameras (lens dependent)
- PTZs can pan/tilt in any direction within a wide set of parameters, and zoom in for close ups and image clarity (dependent upon the megapixel rating and optics package)
- PTZs can cover a large area (up to 360° plus tilt up or down) with a single camera
- PTZs today are available with megapixel sensors, including the 1080p example above
- PTZs can be easy to install, since the focus can be remotely controlled
- PTZs can typically be connected a wide range of VMS and NVR systems today\*

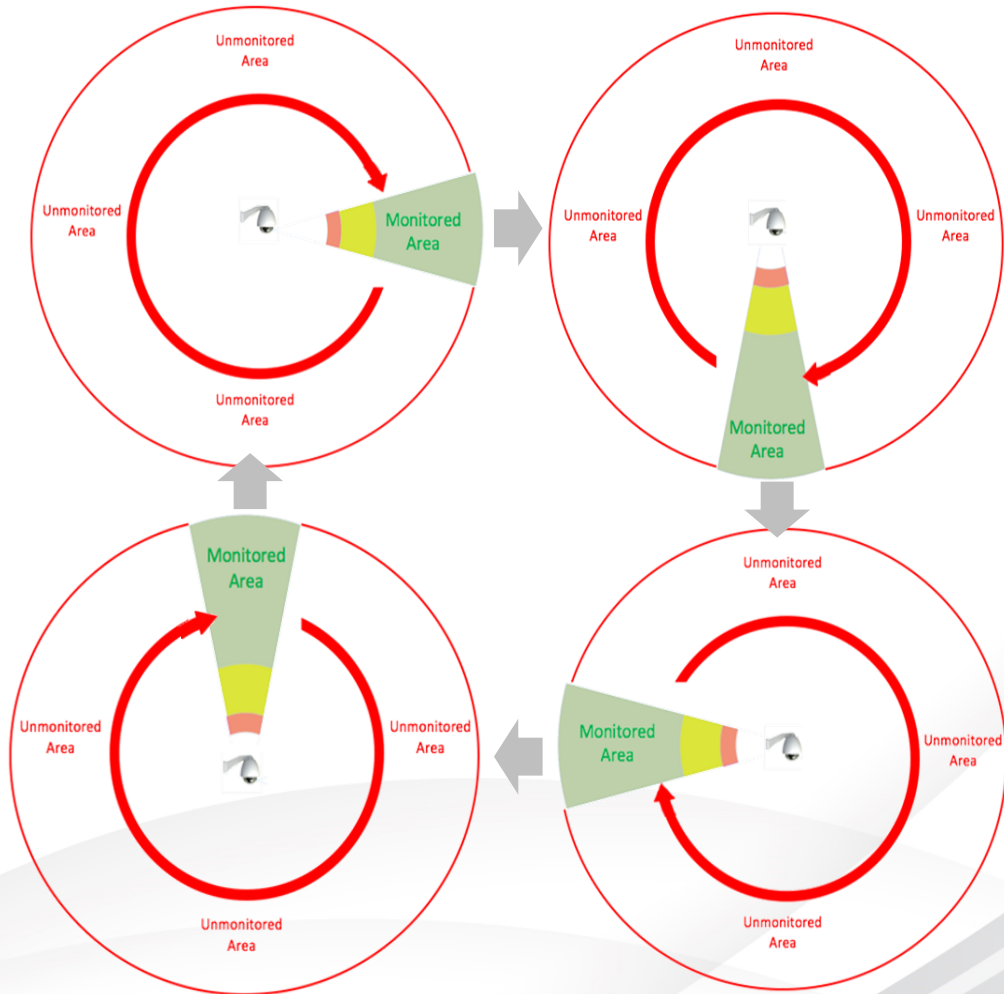
### Con:

- PTZs only see the cone of about 40° where they are focused at any one point of time, not the entire area of coverage; they cannot maintain overall situational awareness
- PTZs include many mechanical parts such as gears, belts, and motors that are potential points of wear and eventual failure due to constant motion, and often can require significant maintenance
- PTZs use a tour program, motion sensing program, and/or live operators to control focus and position; other areas are not covered while the PTZ is zoomed in on a specific area of the entire scene
- PTZ operators can not effectively manage more than one PTZ at a time
- PTZs can have latency issues over IP networks\*

## PTZ – Cone of Coverage

A PTZ views a specific “cone of coverage” as it moves through the area to be monitored. When the camera is zoomed in, it telescopes further into the scene, reducing the coverage area. This reduction of coverage and situational awareness is known as the *telescope effect*.

Areas that the cone does not currently cover are not able to be monitored or recorded. Any activity in the unmonitored area is entirely missed by the PTZ camera.



The unfortunate result is that a typical PTZ is focused on the wrong spot most of the time to capture some or all of an incident as it occurs. If there are multiple incidents or areas of interest at any one time, the camera can only view and record one of them and will miss the other actions.

- PTZ = 40° of 360° view of area = 11% of area covered at any one time
- PTZ = 40° of 270° view of area = 17% of area covered at any one time
- PTZ = 40° of 180° view of area = 22% of area covered at any one time



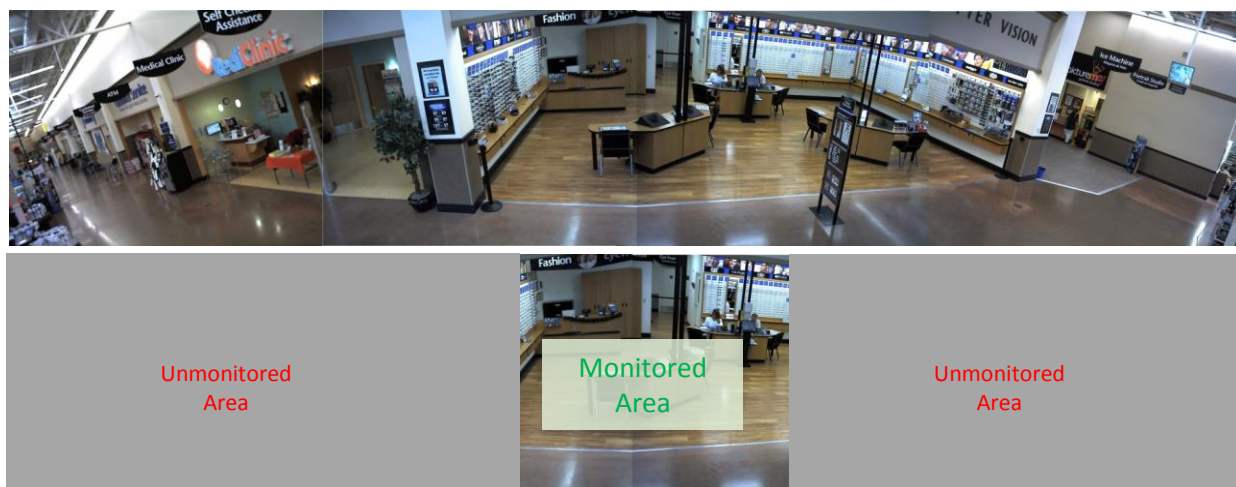
## PTZ – Coverage Examples

The viewing cone for a PTZ limits its effectiveness in providing consistent, overall situational awareness of an entire scene. When the camera is focused on any one area, the rest of the scene is not recorded or monitored by the camera.

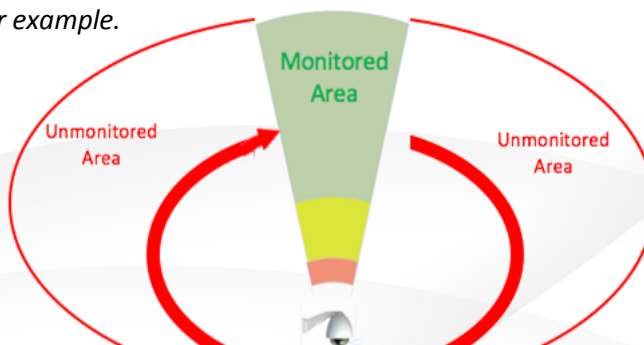
Consider a shopping center example, where a PTZ is used to cover a large open space as shown below. The PTZ can monitor the entire expanse, and zoom into any area of interest or activity.

The same can be seen for a school parking lot and athletic field, as in the second example. The PTZ is able to zoom in as needed for area coverage, limited only by the resolution of the PTZ camera used.

In both cases, once the PTZ is focused on a specific area, *the rest of the scene is unmonitored*.



**ABOVE:** Shopping center example.



**BELOW:** School parking lot and athletic field.





## SurroundVideo Panoramic Multi-Sensor Technology

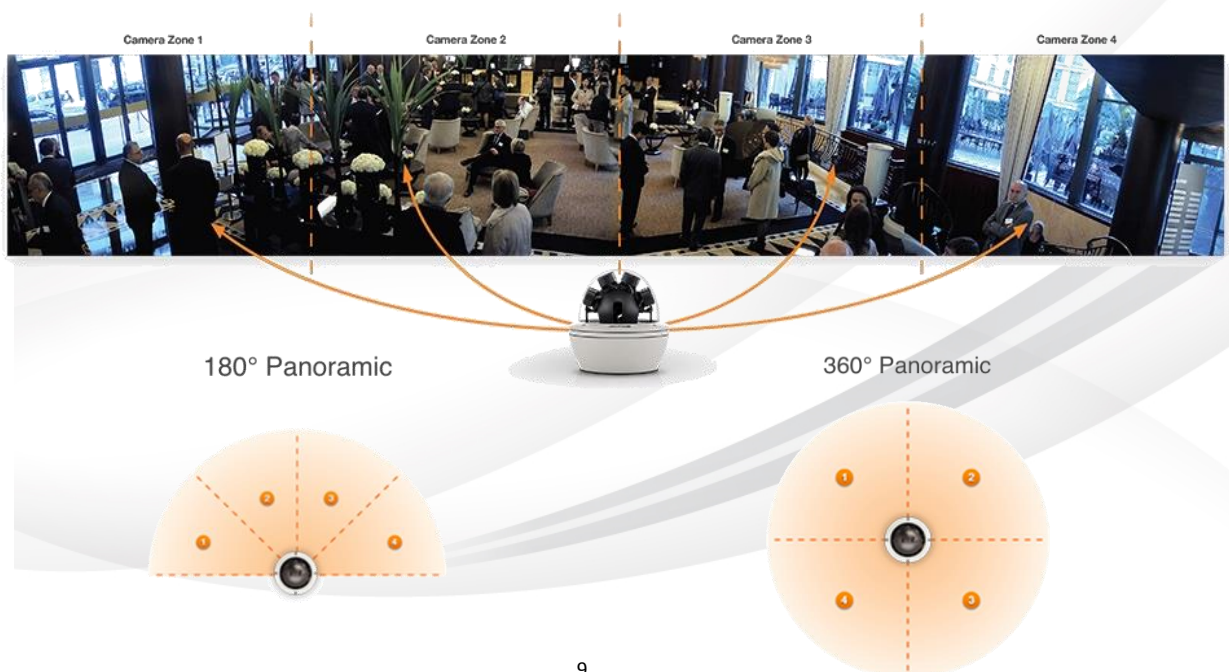
Arecont Vision SurroundVideo multi-sensor multi-megapixel network cameras each have four individual sensors in a single bubble housing. Four sensors are ideal for most panoramic requirements, and most competitor copies of our technology available today are based on this design.

Some vendors offer panoramic cameras with only three sensors to reduce their costs, bring products to market more quickly, and to simplify their development challenges. This is generally an inferior design, since four sensor panoramic cameras offer superior pixel density, image clarity, and coverage angles compared to cameras with fewer sensors when monitoring a similar area. A 4 sensor megapixel camera can provide comparable or superior pixel density and viewing angles to a typical 3 sensor design even when that camera offers a higher overall resolution.

Arecont Vision SurroundVideo panoramic cameras are available with either 180° or 360° fields of view and with 5, 8, 12, 20, or 40MP resolution choices. If a 270° or 360° view is required, a SurroundVideo Omni offers that configuration and much more from parking lot poles, structures, or emergency call boxes.

Fewer monitors are required with a multi-sensor panoramic camera to provide a comprehensive view of an entire area for simplified monitoring, making it easier for the security staff to maintain complete situational awareness.

All SurroundVideo cameras are indoor/outdoor ready, and some models feature WDR (wide dynamic range), advanced low light color technology, and bandwidth reduction capabilities. All Arecont Vision cameras feature our Massively Parallel Image Processing (MPIP) architecture which runs on a Field Programmable Gate Array (FPGA) integrated circuit at the core of the device. The architecture can be updated when new capabilities are available, extending the useful life of Arecont Vision cameras. This architecture also prevents Arecont Vision cameras from being able to be maliciously repurposed for use in cyberattacks on other devices.



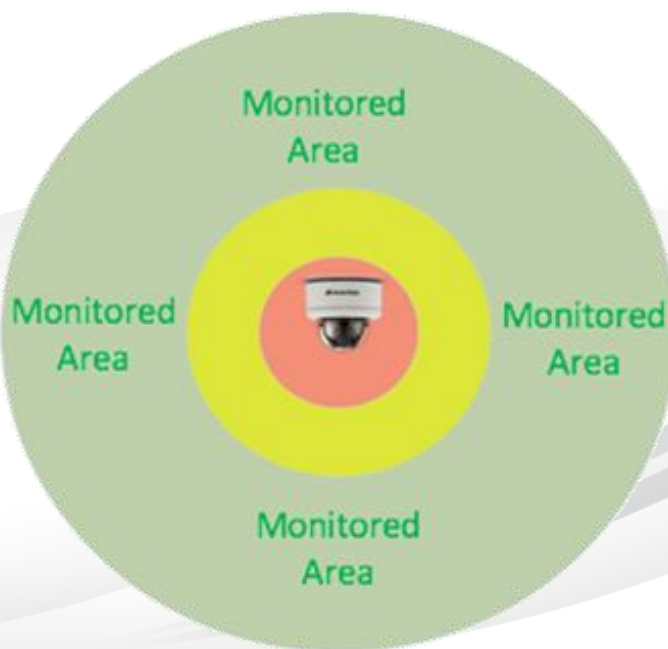
## Panoramic Multi-Sensor Coverage

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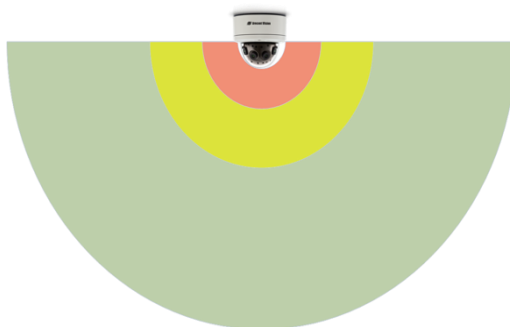
A SurroundVideo panoramic 180° or 360° multi-megapixel camera provides constant area coverage 100% of the time. Recording and viewing continue uninterrupted across the entire scene, even when one of the sensors is digitally zoomed into a specific viewing area by the operator or the VMS/NVR. Live and forensic viewing are both supported.



A SurroundVideo panoramic 180° (above) or 360° (below) camera provides improved situational awareness of the entire scene, and can deliver multiple video streams simultaneously.



## Panoramic Multi-Sensor Coverage - Typical 20MP SurroundVideo 180°



### **Coverage example:**

20MP, mounted 10' (3m) high with 180° FOV

**Red** = 90ppf (Identification)

**Yellow** = 60ppf (Recognition)

**Green** = 30ppf (Detection)

Maximum range shown @ 110' (34m), FOV width at max = 220' (67m)

To learn about SituationalPlus, visit

<https://www.arecontvision.com/landing-pages/situational-plus/overview.php>

### **Pro:**

- Covers 180° field of view continuously
- Good situational awareness maintained 24/7/365
- Good digital forensic zoom, does not impact recording and viewing of entire scene
- No constantly moving parts to require maintenance or to fail
- Slight factory-set overlap between sensors ensures nothing is missed (user adjustable)
- White balance can be automatic or manually adjusted for each sensor
- Standard and mini form factors, and models with remote focus available
- Dozens of integrated top VMS/NVR choices available
- Operator does not need to manage the camera

### **Con:**

- Sensors cannot be aimed in any direction other than the pre-set 180° view [Select a SurroundVideo Omni instead if this is an important consideration]
- Different lenses cannot be used, as the correct lens and focal length are preset for the 180° layout [Select a SurroundVideo Omni instead if this is an important consideration]



**ABOVE:** 180° coverage of automobile dealership showroom



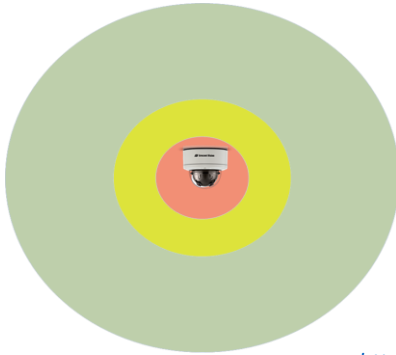
## Panoramic Coverage – 180° Example

Arecont Vision panoramic multi-sensor cameras provide continuous coverage of the entire scene while delivering outstanding HD image clarity, even when digitally zoomed in. The point of sale (POS) checkout terminal/bagging area in the grocery store example below is monitored by a SurroundVideo 180° panoramic camera. The entire scene is covered non-stop for complete situational awareness.



**ABOVE:** A digitally zoomed image from one of the four sensors of SurroundVideo panoramic 180° camera provides outstanding image quality, yet does not interrupt recording, streaming, or coverage of the entire scene.

## Panoramic Coverage - Typical 20MP SurroundVideo 360° Ceiling/Top View



### **Coverage example:**

20MP, mounted 10' (3m) high with 360° FOV

**Red** = 90ppf (Identification)

**Yellow** = 60ppf (Recognition)

**Green** = 30ppf (Detection)

Max range shown @ 42' (13m), FOV width at max = 26' (8m) over 360°

To learn about SituationalPlus, visit

<https://www.arecontvision.com/landing-pages/situational-plus/overview.php>

### **Pro:**

- Covers 360° field of view continuously
- Good situational awareness maintained 24/7/365
- Good digital forensic zoom, does not impact recording and viewing of entire scene
- No constantly moving parts to require maintenance or to fail
- White balance can be automatic or manually adjusted for each sensor
- Dozens of integrated top VMS/NVR choices available
- Standard and mini form factors

### **Con:**

- Sensors cannot be aimed in any direction other than the pre-set 360° view [Select a SurroundVideo Omni instead if this is an important consideration]
- Different lenses cannot be used, as the correct lens and focal length are preset for the 360° layout [Select a SurroundVideo Omni instead if this is an important consideration]

**RIGHT:** 360° coverage of convenience store from a SurroundVideo 360° panoramic camera (a non-WDR model is used in this example)





## SurroundVideo Omnidirectional Multi-Sensor Technology

The award-winning SurroundVideo Omni series provides organizations of all sizes with the flexibility to deploy a surveillance camera that truly matches their specific video surveillance project needs. The SurroundVideo Omni series brings the ability to position each of the four megapixel sensors anywhere around the patented 360° magnetic 70+ placement-point omnidirectional track.

The Arecont Vision-designed 2-axis (SurroundVideo Omni G1) and 3-axis gimbals (SurroundVideo Omni G2 and G3) on which the sensors are mounted deliver an increased range of motion and coverage angles. Remote focus on G2 models further simplifies set up. G3 models offer remote focus varifocal lenses and revolutionary no-touch automatic setup, including pre-selected 180°, 270°, 360°, or user-selectable view choices. This delivers rapid installation and setup for G3 users.

*SurroundVideo Omni G2*

*SurroundVideo Omni G1*

*SurroundVideo Omni G3*



A SurroundVideo Omni multi-sensor multi-megapixel camera provides constant viewing area coverage 100% of the time. Recording and viewing continue uninterrupted across the entire scene, even when the camera is digitally zoomed into a specific viewing area by the operator using any of the industry's most popular VMS/NVR systems.

SurroundVideo Omni (G1 and G2) cameras are able to use different lenses on each of the camera's 4 megapixel sensors, from standard view to wide angle to telephoto. G3 models feature varifocal lenses.

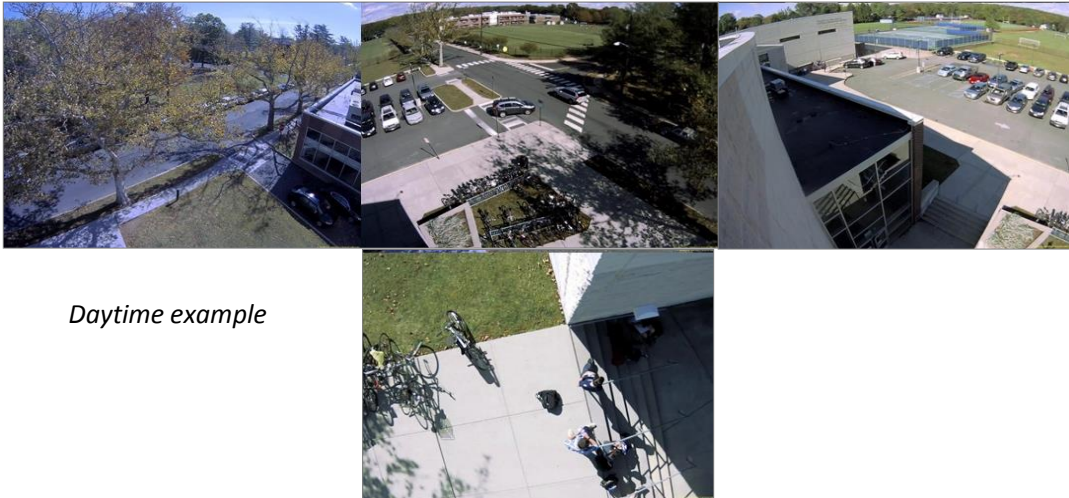
The individual sensors in SurroundVideo Omni cameras can be focused to cover 180°, 270°, 360°, or any view in between. Typical selections are commonly referred to as *Intersection*, *270° Corner*, *Assembly Line*, or *360° Parking Lot* views. The location and angle of the sensors as well as the lens options change as needed for the specific situation. Many other views are possible. SurroundVideo Omni G2 examples are shown below.





## Omnidirectional Coverage - Custom View

For coverage of a school parking lot, entrance, and athletic fields, a SurroundVideo Omni camera can have each of its sensors focused on a different, user-settable area for a custom view. This is the same school example as on page 8, with superior coverage to a PTZ.



*Daytime example*



*Night time example*

The SurroundVideo Omni covers the entire scene non-stop, even when digitally zoomed in on any area, day or night. Each sensor can be manually adjusted for view, and lenses can be individually changed to meet the scene's requirements. Any area can be zoomed in, providing full situational awareness of the scene.

In this example, the SurroundVideo Omni is set to a 270° configuration using 3 sensors, with a 4<sup>th</sup> sensor pointing straight down. This eliminates the blind spot below the camera itself at the entrance of the school, day or night.

Arrangement of the video displayed from each of the sensors can be adjusted by the VMS/NVR system to match customer preferences.

## Omnidirectional Coverage - Intersection View

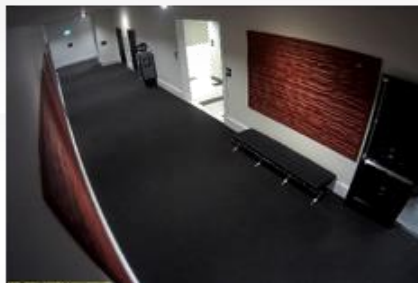
When dealing with a hallway intersection, only a single SurroundVideo Omni series camera is needed to cover all four hallways. This is where the ability to choose different angles and different focal length lenses is extremely important.



To cover all hallways in the example above, the four sensors can be positioned and angled identically and each use the same telephoto lens choice. In the customer example below, a single SurroundVideo Omni camera covers all four views from an elevator lobby, using different angles and lenses for the more complex scene that includes a lobby area and different lengths of hallways.



*Corridor intersection at elevator lobby*



*Provides detailed image*

Code Comparison at 0.01 Lux

*Mix and match for SurroundVideo Omni G1 and G2 from a wide selection of focal length lens choices*

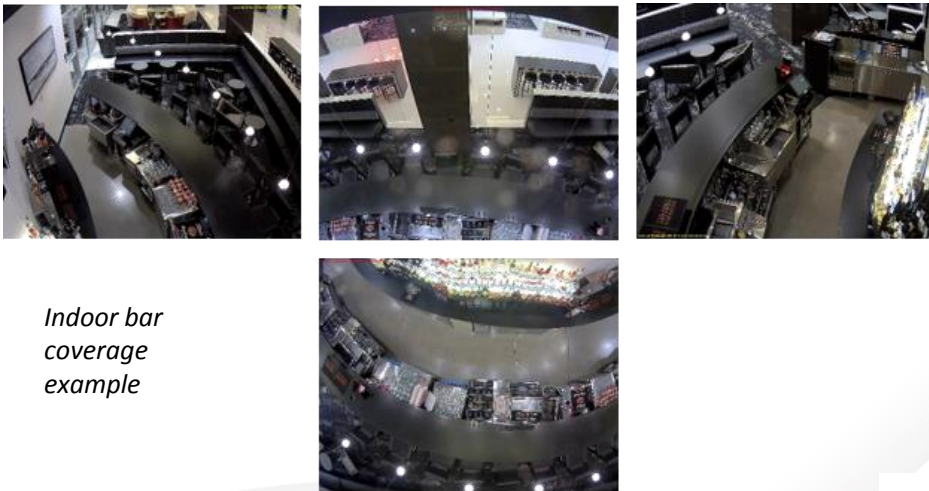


## Omnidirectional Coverage - 270° Corner View

Another great example of the versatility of the SurroundVideo Omni is the corner layout. Configuring the camera for a corner will provide a seamless 270° field of view plus a view from under the camera.

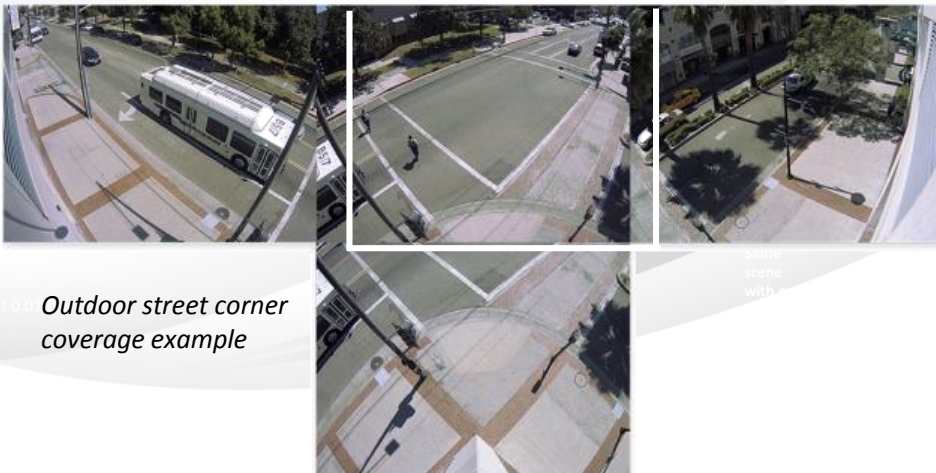


In the next example, a single SurroundVideo Omni camera covers 270° of a bar with three sensors. The fourth sensor points downward to cover the bartender area.



*Indoor bar  
coverage  
example*

In a final example, a street corner is monitored in 270° with three sensors. The fourth sensor points downward to cover the area below the camera to eliminate any blind spot in coverage.



*Outdoor street corner  
coverage example*



## Omnidirectional Coverage - Assembly Line View

The SurroundVideo Omni is customizable beyond standard 180°, 270°, and 360° configurations. Installing the camera over an assembly line, using two standard lenses directly below the Omni and two telephoto lenses on the sides, will capture the furthest reaches of the scene. This will deliver a comprehensive view, and reduce the fixed view cameras required from four to one SurroundVideo Omni, and for non-stop coverage unlike a PTZ. The same view can be used to monitor a loading dock, multiple POS terminals, building lobby, or other long layouts.



The 2-axis gimbals in the SurroundVideo Omni G1 and 3-axis gimbals in the SurroundVideo Omni G2 and G3 combine with the patented omnidirectional track provide the ability to move and focus beyond a single fixed view. The camera sensors can be adjusted to cover just about any angle.



*The 3-axis gimbals on a SurroundVideo Omni G2 feature motorized remote focus modules. Each of the 4 sensors can quickly be positioned on the track, then remotely focused. The newest SurroundVideo Omni model, the G3, enables all 4 sensors to be positioned and moved around the track and remotely focused without physically touching any of the sensors during the process. This is known as no-touch remote setup, and further speeds and simplifies installation.*

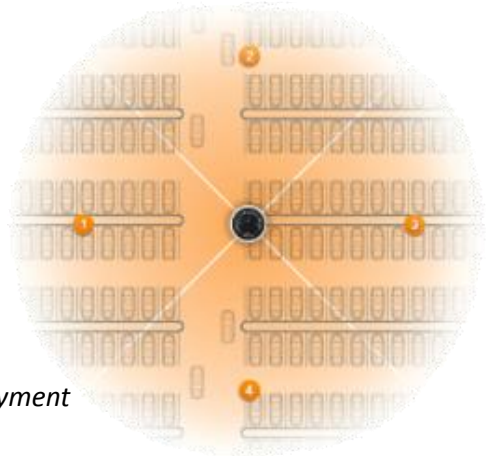


## Omnidirectional Coverage - 360° Parking Lot View

The SurroundVideo Omni can be used very effectively to give a 360° view of a parking lot, traffic circle, large room or theatre, or other indoor or outdoor open spaces using four 90° lenses. The graphic (below right) reflects this layout. Unlike a PTZ, the view and recording of the entire scene is continuous.

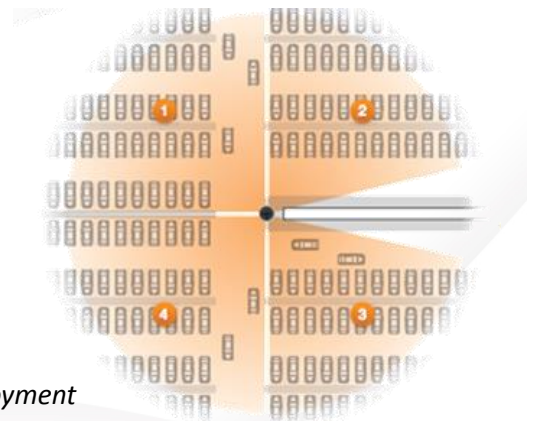


*360° deployment example*



The SurroundVideo Omni configuration can be easily modified to adjust the view due to structures, trees, or other obstructions in the desired viewing area.

The graphic to the right demonstrates a modified 320° setup, where pixels are not wasted on an unchanging obstruction in the image (in this example, a wall). The aim is adjusted for two 90° lenses and two 70° lenses to accomplish this.



*320° deployment example*

Provides detailed images

In the final example below, a single SurroundVideo Omni camera provides a 360° view from the center of a traffic circle for complete, non-stop situational awareness. At any point, the view can be zoomed in without impacting recording and viewing of the entire scene. The SurroundVideo 360° panoramic series should also be considered, since it is purpose-built for this view.



*360° traffic circle view*

## SurroundVideo Integration with Leading VMS/NVR Systems

Arecont Vision SurroundVideo cameras are integrated with the industry's leading VMS/NVR systems. Multi-sensor cameras from other vendors may not offer as many choices or as extensive integration.

Integration of SurroundVideo and other Arecont Vision cameras is accomplished through the Arecont Vision Technology Partner Program and its MegaLab™ Test and Certification facility. VMS/NVR manufacturer members and other program members use the facility jointly with Arecont Vision to validate integration.



Learn more about the Arecont Vision MegaLab online at: <https://goo.gl/RrKb5Z>.

Pretesting and integration goes beyond the ONVIF and PSIA standards, to ensure that all features and capabilities of Arecont Vision cameras are available and integrated with the VMS/NVR selected.

The graphic at right shows some of the VMS/NVR vendors certified via the MegaLab for use with Arecont Vision cameras. For a more current and detailed list, visit the Arecont Vision Technology Partner Program pages at: <https://www.arecontvision.com/nvrmatrix.php>.

Onsite integration of Arecont Vision cameras is easy. For several brief video demonstrations of how easily and quickly setup of SurroundVideo multi-sensor cameras is accomplished using popular VMS or NVR products, visit: <http://www.arecontvision.com/vms-videos.php>.





## Conclusions

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SurroundVideo multi-sensor panoramic and omnidirectional cameras offer many advantages over PTZ technology. Arecont Vision remains the multi-sensor camera leader following first introduction of the technology in 2006. The current SurroundVideo series have benefited from continued feature development, quality improvements, and design enhancements.

<b>SurroundVideo 180/360</b>	<b>SurroundVideo Omni</b>	<b>PTZ</b>
<ul style="list-style-type: none"><li>- Non-stop coverage (180/360)</li><li>- No constantly moving parts</li><li>- Full situational awareness</li><li>- Zoom without impacting recording</li><li>- Zoom without impacting viewing</li><li>- Many VMS/NVR integrations</li><li>- Proven technology</li><li>- Common fixed views (180/360)</li><li>- Operator independent</li></ul>	<ul style="list-style-type: none"><li>- Non-stop omnidirectional coverage</li><li>- No constantly moving parts</li><li>- Full situational awareness</li><li>- Zoom without impacting recording</li><li>- Zoom without impacting viewing</li><li>- Many VMS/NVR integrations</li><li>- Proven technology</li><li>- Adjustable views</li><li>- Operator independent</li></ul>	<ul style="list-style-type: none"><li>- Cone of coverage</li><li>- Gears, motors, and belts</li><li>- Limited situational awareness</li><li>- Records focused area</li><li>- Views focused area</li><li>- Many VMS/NVR integrations*</li><li>- Proven technology</li><li>- Adjustable views</li><li>- Operator/program dependent</li></ul>
		* May vary by manufacturer

A single Arecont Vision SurroundVideo multi-sensor camera can replace multiple fixed-view or pan-tilt-zoom (PTZ) cameras while providing improved coverage and enhanced situational awareness. SurroundVideo multi-sensor cameras require lower ongoing maintenance and reduced operational cost without the constantly moving mechanical components that can wear out or need adjustment in a PTZ.

SurroundVideo multi-sensor cameras are customer-proven and are integrated with full feature support with most leading VMS/NVR systems. They require only a single PoE (Power over Ethernet) network cable, a single IP address, and a single VMS/NVR license (most vendors) to further reduce cost and complexity.

Arecont Vision cameras are based on Field Programmable Gate Array (FPGA) ICs and our in-house developed Massively Parallel Image Processing architecture that is now in its 5<sup>th</sup> generation. All core software features are developed by Arecont Vision and not obtained from 3<sup>rd</sup> parties. This provides both maximum performance with the camera hardware and offers additional protection against malicious code inadvertently being inserted into the device. Common operating systems such as Linux or Windows that are embedded in other cameras, devices, and platforms are not used in Arecont Vision cameras, eliminating potential gateways to multiple cybersecurity risks.

The Arecont Vision camera architecture can be updated for both major and minor security updates, and for both product feature enhancements and new capabilities. This increases cybersecurity capabilities while extending the useful life and return on investment of Arecont Vision cameras. The architecture further protects Arecont Vision cameras, making them unusable by malicious code to launch Distributed Denial of Service, ransomware, network penetration, or other cyberattacks on other network-enabled devices even if the camera's user ID and 16-digit ASCII passwords are ever compromised.

Arecont Vision panoramic and omnidirectional multi-sensor cameras are superior to PTZ cameras for a wide range of application needs and project demands and should continue to be a customer's first choice.

## Recommendations

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1. SurroundVideo multi-sensor multi-megapixel cameras should be considered for any surveillance project where one or more PTZs or single sensor cameras had been planned or are already installed. The enhancements that multi-sensor cameras deliver with non-stop video coverage and enhanced situational awareness will improve the resulting video surveillance system while requiring fewer cameras.
2. SurroundVideo panoramic multi-sensor cameras are easy to set up and install, and should be considered for typical 180° and 360° degree surveillance needs. Learn more about SurroundVideo panoramic cameras from the interactive page at: <https://www.arecontvision.com/landing-pages/surround-video/overview.php>.
3. SurroundVideo omnidirectional multi-sensor cameras offer flexible coverage of any scene, and deliver enhanced coverage with user-settable views. Learn more about SurroundVideo Omni cameras from the interactive page at: <https://www.arecontvision.com/landing-pages/omni/overview.php>.
4. Do not believe a data sheet without seeing the camera in action. Not all multi-sensor cameras are created equal. Other manufacturers have attempted to copy Arecont Vision's continued leadership and multi-sensor designs that we pioneered without matching the capabilities of SurroundVideo.
5. Compare multi-sensor cameras in real-world environments. SurroundVideo multi-sensor multi-megapixel camera technology is now in its 5<sup>th</sup> generation. The SurroundVideo Omni series is now entering its 3<sup>rd</sup> generation. Other vendors are delivering first generation copies, without the design experience of Arecont Vision in hundreds of thousands of installations.
6. Be aware that copies or clones of our multi-sensor cameras lack the refinements and advanced features of SurroundVideo (such as not offering WDR or low light capability choices), cut corners to compete (such as offering lower resolutions, reducing the number of sensors, or offering huge cameras that are hard to install), and are integrated with few of the leading VMS and NVR systems.
7. Buy only megapixel cameras that can be updated with new features, capabilities, and security enhancements that increase the useful life of the camera and protect against changing cyber threats. Competitor clone cameras do not offer our 5<sup>th</sup> generation Massively Parallel Image Processing architecture or the flexibility and performance of our FPGA integrated circuit that together allow new features, enhancements, or full security updates for unmatched cybersecurity protection.
8. Use the Arecont Vision Try-and-Buy program to obtain and install an Arecont Vision camera risk free for a trial at the customer site. It can be purchased at a special price through the program to demonstrate the real-life advantages of SurroundVideo cameras [see current promotions at <https://www.arecontvision.com/landing-pages/promos/overview.php#tryandbuy>].
9. Learn more about other industry-leading technologies that have been developed in house by Arecont Vision that benefit our customers every day at: <https://www.arecontvision.com/landing-pages/industry-leading-technology/overview.php>.
10. Contact Arecont Vision to arrange a demonstration of our award-winning multi-sensor cameras.
  - Look up the Arecont Vision contact for your region around the world online here: <https://www.arecontvision.com/where-to-buy.php>
  - Request information at: <https://www.arecontvision.com/contactform.php>
  - Email us at: [sales@arecontvision.com](mailto:sales@arecontvision.com)
  - Call our corporate headquarters at: +1.818.937.0700
  - Visit us online at [www.arecontvision.com](http://www.arecontvision.com)

Learn More

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Leading the Way in Megapixel Video™

[www.arecontvision.com](http://www.arecontvision.com)

[sales@arecontvision.com](mailto:sales@arecontvision.com)

+1.818.938.0700



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### Arecont Vision

425 E Colorado St., 7<sup>th</sup> Floor  
Pasadena, CA 91107 USA

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