# High Definition Security Solutions

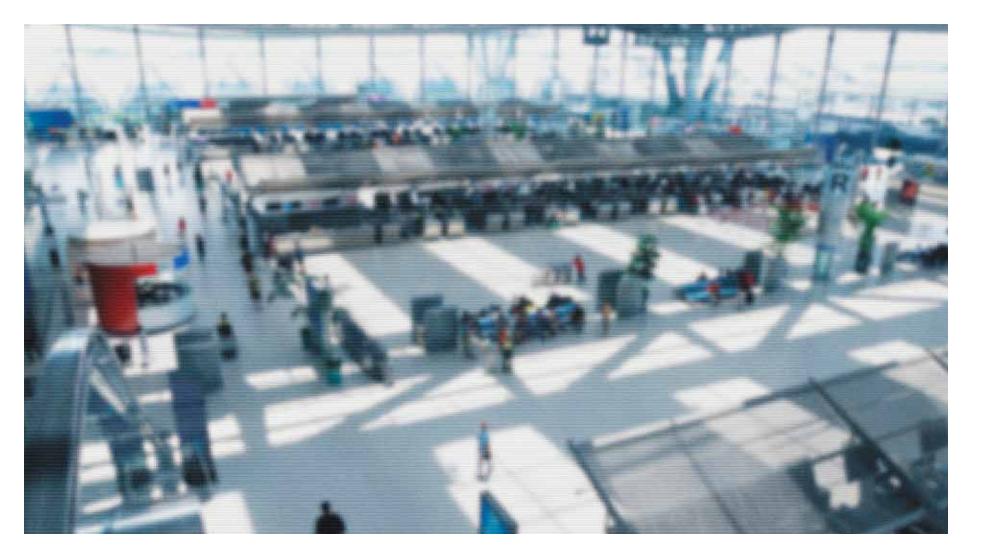
End-to-end protection, in HD



Avigilon's end-to-end surveillance solutions give you image detail no other system can match. Avigilon designs and manufactures the absolute best high-definition surveillance solutions that deliver the best evidence.

Our HD Network Video Management Software and megapixel cameras deliver superior image quality and maximum coverage. Avigilon components can work together in an end-to-end solution or work with your existing systems to enhance their current capabilities. We offer a variety of configurations that let you customize your own powerful, scalable and cost-effective surveillance solution. With all of our components designed and manufactured in Canada, you can be assured that you will always get the best quality and the most reliable products in the industry.

Avigilon can help you protect and monitor an array of diverse locations with the best image clarity, including stadiums, retail environments, casinos, critical infrastructure, transportation stations, and more, providing the best evidence possible.





## Maximum clarity. Minimum bandwidth.

Delivering high-definition surveillance video can be taxing on bandwidth and storage. That's not the case with Avigilon, thanks to our High Definition Stream Management (HDSM)<sup>™</sup> technology. Our HDSM<sup>™</sup> technology preserves complete image integrity through visually loss-less compression while efficiently managing bandwidth and storage.

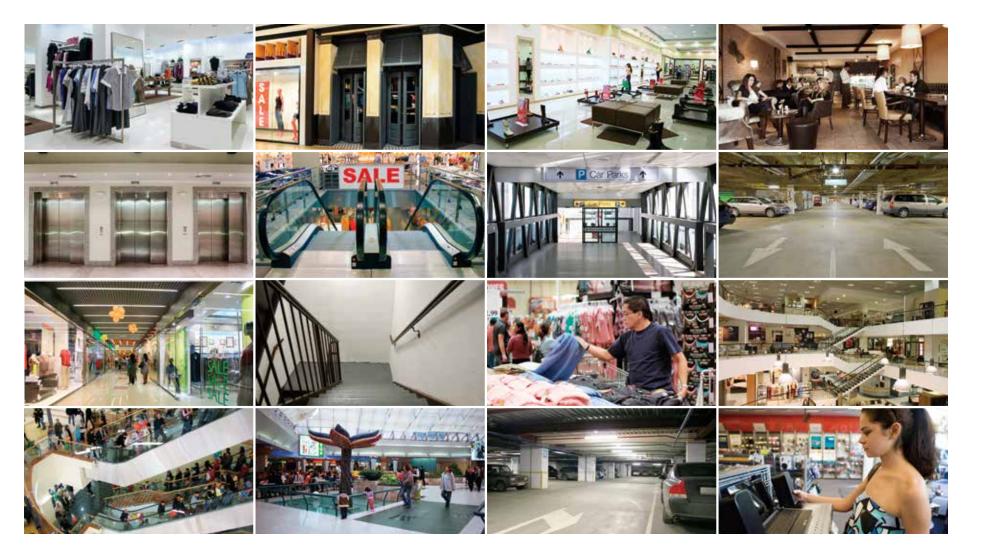


# The fastest way to find.

Find scene changes, missing objects, and events with the industry's quickest high-definition video search. Our Avigilon Control Center, with its simple and intuitive interface, gives you full control over surveillance video playback, allowing you to quickly retrieve evidence and speed up response times and investigations.









# Scale it up. Scale it down.

Avigilon Control Center software was built entirely for HD. That means you'll have the stability and flexibility to create a system with one HD camera or an unlimited number of HD cameras, without having to worry about a software crash. Moreover, our products are compatible with existing analog cameras and other IP-manufacturer cameras.



With a traditional VGA camera you're only getting a fraction of the picture. One Avigilon camera can cover the equivalent of 95 VGA cameras.



# Take your pick of the best.

We offer the broadest range of megapixel cameras (from 1 MP to 29 MP) that deliver the best image quality in the industry. Compared to traditional analog cameras, Avigilon cameras effectively and efficiently allow you to cover wider areas in greater detail using fewer cameras. The results? Lower installation and labor costs, and the exceptional value that only Avigilon can provide. Our award-winning Avigilon Control Center software with High Definition Stream Management (HDSM)<sup>™</sup> technology delivers full situation awareness and indisputable image detail, leading to faster response times, reduced investigation times, and superior overall protection. Avigilon Control Center also lets you seamlessly integrate any of our other easy-to-use solutions, including Avigilon Access Control Manager and our HD analytics solutions, for a full-featured security system that provides you with the highest level of protection possible.

## VIDEO MANAGEMENT SOFTWARE

### Avigilon Control Center 5



Avigilon Control Center is the industry's easiest-to-use video management software, and has revolutionized how security professionals manage and interact with high-definition video. As a securely distributed network platform with enterpriseclass reliability, Avigilon Control Center is able to efficiently capture, manage and store high-definition surveillance video while intelligently managing bandwidth and storage. Avigilon Control Center comes pre-installed and configured on an Avigilon Network Video Recorder (NVR) or can work as standalone software, to meet the needs of any type of installation.

Avigilon Control Center records and manages both video and audio from Avigilon's line of megapixel cameras (from 1 MP to 29 MP – the broadest range in the industry). Avigilon Control Center can seamlessly integrate conventional analog cameras, along with a broad range of third-party IP cameras and encoders, giving you the ability to build a hybrid system – providing you with a budget-conscious migration from analog to digital. Avigilon Control Center is powerful and intuitive, with an easy-to-use interface that allows personnel to evaluate and respond to events with minimal training.

# High Definition Stream Management (HDSM)<sup>™</sup> Technology

Avigilon Control Center uses our revolutionary High Definition Stream Management (HDSM)<sup>™</sup> technology, which efficiently compresses and preserves image quality while intelligently managing HD image transmission throughout the Avigilon system—sending only the requested portions of captured images to operator workstations. This technology delivers the best possible image quality while providing immediate savings in transmission bandwidth allowing operators to use less powerful workstations and thereby reducing costs. Our HDSM<sup>™</sup> technology leverages leading imaging, hardware, data compression and information technologies to maximize performance of the Avigilon system.





ENTERPRISE SERVER MANAGEMENT



INTELLIGENT VIRTUAL MATRIX

#### Avigilon Control Center 5 Features User Interface

Powerful software doesn't have to be complicated. That's why we've made the easiest-to-use interface on the market even easier. Avigilon Control Center's system explorer functionality gives you more control over what you see at your workstation or video wall by allowing you to resize the interface — so you can focus on image windows rather than a complicated screen layout. For greater efficiency, we've made the controls you use most often the easiest to access, and the ones you use the least, tucked away nearby for easy accessibility.

#### **Collaborative Investigations**

Avigilon Control Center 5 allows multiple operators to view and interact with the same layout and interface in real time. Now a user can push their feed to another workstation, and they both have complete control to manipulate and maneuver it on their own, saving the users time by letting them demonstrate incidents and review HD video together all without ever being in the same room.

#### Crash-Proof Enterprise Server Management

Up to 100 servers can be synchronized as a single cluster, operating as one unit, with no dedicated management server required. So if one goes down, the others are still fully operational and already have the information and settings that would normally be lost. And adding new servers is as easy as plugging them in — they'll automatically grab all the user's information and settings, with no setup required.

#### Intelligent Virtual Matrix

With Avigilon Control Center 5, you can flawlessly transform your static video wall into an intelligent video wall, finally utilizing its full capabilities — easily maneuver through camera feeds, manipulate your wall's layout, interact with video, zoom, rewind, isolate, and much more.





#### Cross-site users and groups

Avigilon Control Center enables users to add groups and designate specific permissions to multiple sites at once, greatly increasing the integrity, speed and efficiency of their system deployment.

#### Private bookmarking

The private bookmarking functionality of ACC 5 enables system administrators to designate footage as confidential, helping to maintain the privacy of sensitive high-definition video footage and ensuring that only appropriate individuals have access.

#### Alarm escalation

With new alarm escalation capabilities, organizations are able to set up time-sensitive alerts according to priority, ensuring that alerts are addressed and appropriately escalated based on severity.

#### Pick site-view location

ACC 5's pick site-view location functionality increases your system setup speed and allows new items to be added with the appropriate permissions in a designated location.

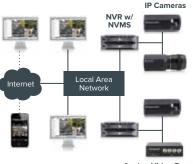
#### Multi-Megapixel High-Dynamic-Range Image Display

- Analyze detailed regions from single or multiple cameras.
- Use viewing tabs to allow single operators to switch between multiple cameras located throughout large enterprise systems.
- Digitally zoom and pan within an image with a mouse or surveillance joystick. Automatic dynamic contrast enhancement reveals low-light details for unmatched digital PTZ performance.
- View live or recorded high-definition surveillance footage.

#### Data Protection and Storage Management

- Redundant recording to multiple NVRs allows a full live mirror of all high-definition video. Automatic fail-over NVRs ensure uninterrupted recording if an NVR becomes unavailable.
- Integrated backup and restore functionality allows recorded HD video from multiple cameras to be securely transferred from an NVR on a defined schedule.
- Allocate more storage capacity to recent events and taper archived surveillance footage for maximum record times with data aging.





Analog Video Encoder & Analog Cameras

#### Integrated Graphic Mapping for System Layout

- Advanced graphic-mapping interface lets operators layout cameras and servers on an imported map for easy navigation of large surveillance systems.
- Maps can be layered and nested, allowing easy navigation through satellite maps, multi-story buildings and very large areas.

#### HD Recording and Playback Timeline

- Advanced timeline interface with unique integrated drag-to-zoom capability allows full control over high-definition surveillance video playback, in forward and reverse, at variable speeds—up to 8 times faster than real time.
- Rapidly updating playback system allows intuitive jog or shuttle playback to identify key events and subtle changes.

#### Bandwidth Management and Remote Viewing

- Fine-tune camera bandwidth usage to optimize image quality and network bandwidth availability with HDSM<sup>™</sup>.
- Remotely connect to multiple recorders to view live and recorded surveillance footage over the local area network, over a low bandwidth wide area network connection.

#### Bookmark and Export HD Surveillance Footage

- Securely bookmark and export movies or still images in industrystandard formats or in Avigilon loss-less format for third-party forensic work.
- Exported video can be managed via the Avigilon Control Center Player—a powerful playback application with all the tools required for analyzing and reviewing captured HD surveillance footage.
- Bookmarked events are indexed to allow rapid searching using user defined metadata.

#### Video Search

- Unique sub-region thumbnail searching allows you to rapidly find small changes within HD surveillance, covering large areas.
- Quickly and accurately navigate through large amounts of recorded high-definition video with camera-specific event logs.
- Search through alarms, point-of-sale transactions, license plates and bookmarks.





#### Advanced Control Center Features

#### Alarm Monitoring

- Allows the creation of complete end-to-end workflows for the monitoring, assignment, and acknowledgement of alarms.
- Can be triggered by any internal system event, as well as external third-party access control and building management system triggers.

#### **POS Transaction Engine**

- Link HD surveillance footage (viewed instantly) with transaction data to address compliance requirements and reduce shrinkage and theft.
- Exception filtering and reporting allows the triggering of events when transactions match specified criteria.

#### Acquisition Manager

- Ensures that all Avigilon cameras, regardless of resolution, are always configured to collect the best possible image over a wide range of lighting conditions.
- Configure multiple independent camera-specific motiondetection zones for pre- or post-motion-triggered recording.

#### Simple Camera and Server Installation

 Unique plug-and-play capabilities for NVRs and cameras automatically identify themselves on the network, without manual configuration or searching—eliminating complex network configuration.

## Detailed Management, Monitoring, and Reporting of System Status and Security

- Detailed logs of storage, network, and overall system status to ensure the highest possible system uptime for critical applications.
- Powerful rules engine lets administrators and operators map any camera or system event to an action, such as triggering output alarm relays, for faster identification and improved response times.
- Programmable email alerts provide rapid remote notification in the event of camera tampering, a system alert, an alarm or a motion event.

#### Scalable Integration with Legacy Systems

- Distributed architecture features a .NET-based API that can easily be integrated with other systems, such as access control and building management.
- Benefit from a new level of HD video surveillance while maintaining a single interface and minimizing training costs.

#### License Plate Recognition

- Detects specific regional license plates as they appear in the camera field of view to monitor vehicle traffic.
- Provides a Watch List feature to notify users when specific license plates are detected in the scene.

#### **Analytics Integration**

#### **High-definition Analytics**

Avigilon Control Center seamlessly integrates with our Rialto<sup>™</sup> analytics appliances, providing you with a commercially proven, powerful analytics and high-definition video combination that helps to prevent crime while providing unmatched levels of identification and delivering positive ROI.

#### Superior Prevention, Superior Image Detail

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 perimeter protection to keep both personnel and assets safe. Avigilon analytics, paired with 1 MP and 2 MP high-definition cameras, provide unmatched perimeter protection, while our high resolution HD Pro cameras (from 8 MP to 29 MP) provide the coverage and detail needed for identification and verification of irrefutable evidence.



#### Core, Standard & Enterprise

To create the best-matched system for your surveillance needs, the Avigilon Control Center software is offered in three editions: Core, Standard and Enterprise. The Enterprise edition includes more advanced features for a sophisticated solution, whereas the Standard edition is used for more focused needs or for those looking to transition to HD surveillance in the most cost-effective way. Avigilon Control Center Core is an entry-level version of our award-winning software that delivers advanced high-definition surveillance capabilities, ease of use, and superior image quality to smaller implementations. No matter what the size of your installation, you can customize a solution that is right for you.

System	Core	Standard	Enterprise
Number of cameras per server	24	48	128
Number of servers per site	1	1	100
Number of concurrent server connections	1	24	Unlimited
Number of client licenses per server	2	5	Unlimited
High Definition Stream Management (HDSM) <sup>™</sup>	Yes	Yes	Yes
Industry's most powerful VMS engine	Yes	Yes	Yes
Device Support	Core	Standard	Enterprise
Automatic device discovery	Yes	Yes	Yes
Third-party IP cameras & encoders	Yes	Yes	Yes
ONVIF cameras & encoders	Yes	Yes	Yes
HD, HD H.264, HD panoramic cameras	Yes	Yes	Yes
Avigilon encoders	Yes	Yes	Yes
H.264 support	Yes	Yes	Yes
MPEG4 support	Yes	Yes	Yes
MJPEG support	Yes	Yes	Yes
JPEG2000 support	Yes	Yes	Yes
HD professional cameras	No	No	Yes

÷	Client	Core	Standard	Enterprise
	Powerful, easy-to-use client interface	Yes	Yes	Yes
	Web browser client interface	Yes	Yes	Yes
	Joystick support	Yes	Yes	Yes
	Avigilon Control Center mobile / gateway	Yes	Yes	Yes
	Saved views	No	Yes	Yes
	Maps	No	Yes	Yes
è	Web pages	No	Yes	Yes
	Windows user authentication	No	No	Yes
	Editable Site View	No	No	Yes
	Intelligent Virtual Matrix	No	No	Yes
	Collaborative investigations	No	No	Yes

Recording, Searching and Playback	Core	Standard	Enterprise
Hourly configurable recording schedule	Yes	Yes	Yes
Loss-less recording	Yes	Yes	Yes
Pixel search	Yes	Yes	Yes
Thumbnail search	Yes	Yes	Yes
Event search	Yes	Yes	Yes
Multi-camera export	Yes	Yes	Yes
Live export	Yes	Yes	Yes
POS transaction search	No	Yes	Yes
Alarm search	No	No	Yes
License plate event search	No	No	Yes

Add-On Modules and Integrations	Core	Standard	Enterprise
Point of Sale Transaction Engine	No	Yes	Yes
HD LPR Module	No	No	Yes
SDK	No	Yes	Yes
RS2 – AccessIt!	No	Yes	Yes
DSX – WinDSX	No	Yes	Yes
DDS – Amadeus	No	Yes	Yes
(Cardax) Gallagher – Command Center	No	No	Yes
(GE) UTC – FCWnx	No	No	Yes
Hirsch – Velocity	No	No	Yes
Lenel – OnGuard	No	No	Yes
AMAG – Symmetry	No	No	Yes
Jacques – IP Integrated Communication	No	No	Yes
Software House – C•CURE 9000	No	No	Yes
Zenitel – Stentofon	No	No	Yes
S2 – Netbox	No	No	Yes

ise	Additional Features	Core	Standard	Enterprise
	E-Mail event notification (motion & system event)	Yes	Yes	Yes
	Digital input email trigger	No	Yes	Yes
	Manual digital output trigger	No	Yes	Yes
	Audio recording	No	Yes	Yes
	Audio output	No	Yes	Yes
	Rules engine	No	3	Unlimited
	Redundant recording	No	No	Yes
	Failover connections	No	No	Yes
	Alarm management	No	No	Yes
	Scheduled and one-time backup	No	No	Yes
	License Plate Recognition	No	No	Yes

For the most current list of integrations and add-ons supported by Avigilon Control Center, please visit avigilon.com/integrations

### Avigilon Control Center Mobile



The Avigilon Control Center Mobile application lets security professionals connect to the Avigilon Control Center software over any IP wireless network using Apple or Android mobile devices. View live and recorded HD surveillance video from any location with a wireless connection and shorten response times even when you're in the field.

Leveraging Avigilon's High Definition Stream Management (HDSM)<sup>™</sup> technology, Avigilon Control Center Mobile is designed to efficiently support high-megapixel images and detail of up to 29 MP over low-bandwidth connections. Through the Avigilon Control Center Gateway, Avigilon Control Center Mobile can easily connect to an unlimited number of servers and cameras—expanding access to video surveillance data for greater coverage and remote monitoring. Possible applications:

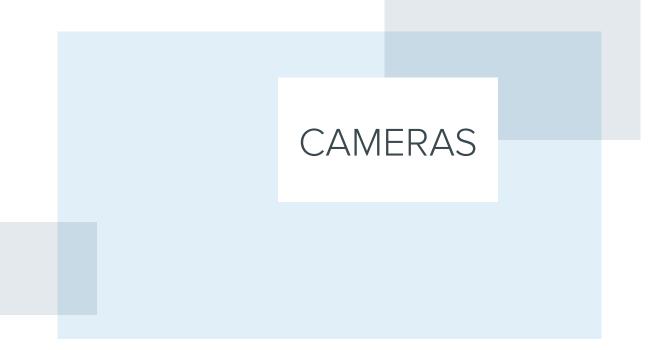
- Business owners
- Roaming for larger areas such as campuses
- Detecting specific actions in and around large infrastructure







Avigilon offers the broadest range of high-definition cameras in the industry – from 1 MP to 29 MP – and are available in a variety of formats, including dome, panoramic and fixed. Whether it's a small storefront that requires a few cameras or a large complex system requiring complete coverage of numerous areas, you can trust that you're getting the best solution for your security needs.









## H.264 HD Camera

H.264 HD cameras (available in 1 MP to 5 MP resolutions) operate on Avigilon's upgraded H3 platform to offer greater resolution performance, wide dynamic range (WDR) support, enhanced HDSM<sup>™</sup> features and superior low light performance with Avigilon's innovative LightCatcher<sup>™</sup> technology. These cameras feature an integrated lens for remote focus and zoom control and are ONVIF compliant for no-hassle integration with Avigilon Control Center or other leading VMS software. These cameras come with onboard storage capabilities, allowing for the storage of footage directly on the device using a standard SD card. The H.264 HD camera is effective for monitoring a variety of environments, such as banks, schools, retail outlets, municipal grounds and buildings, hotels, bars and restaurants.

<b>KEY FEATURES</b> Remote Zoom and Focus	<b>BENEFITS</b> With remote zoom and focus included in the lens, installation only requires mounting and aiming.
Industry Standards	ONVIF compliance allows for integration with Avigilon Control Center and other leading video management systems.
Automatic IR Cut Filter	Superior low-light performance and sensitivity to IR illuminators while providing true color imaging in the day.
Alarm Input and Outputs	Synchronize with external alarms and integrate motion detection into your current alarm systems.
P-Iris Support	Positional iris control allows camera to automatically set iris position to maximize image quality in all lighting conditions.
LightCatcher™ Technology⁺	Collects significantly more detail from a low light scene, to deliver higher quality colour images with far less noise than other low light cameras.
Onboard storage	SDHC and SDXC card compatability for storage of video footage directly on the device.

#### **AVAILABLE RESOLUTIONS**

Resolution	1 MP	1.3 MP	2 MP	3 MP	5 MP	Lens type
	1280 X 720	1280 X 1024	1920 X 1080	2048 X 1536	2592 X 1944	Lens
<b>Coverage width</b> (at 40 pixels per foot on target)	3	2 ft	48 ft	51ft	64 ft	feature
	9.7	7 m	14.6 m	15.6 m	19.7 m	Lens distance
Images per second	30	30	30	20	13	uistance
Wide Dynamic Range	No	No	No	Yes	No	
LightCatcher <sup>™</sup> technology	No	Yes	No	No	No	
Onboard Storage	Yes	Yes	Yes	Yes	Yes	

#### AVAILABLE LENSES

Lens type	3-9 mm*	9-22 mm	4.7-84.6 mm
Lens feature	f/1.2, P-Iris, remote zoom and focus	f/1.6, P-Iris, remote zoom and focus	f/1.6, auto- Iris, remote zoom and focus
Lens distance	57		

\*1.3 MP HD camera only available with 3-9mm lens.







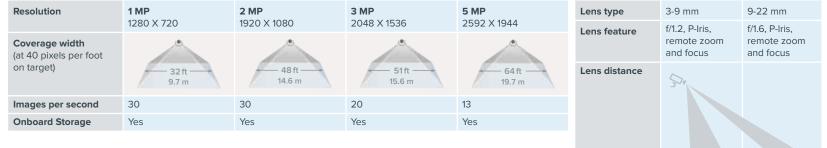
## H.264 HD Bullet Camera

Avigilon's HD Bullet cameras (available in 1 MP to 5 MP resolutions) are ideal for seeing objects and activity in complete darkness. With our unique adaptive IR technology, these cameras are equipped to provide both wide and narrow illumination, enabling consistent illumination in complete darkness to maximize image quality regardless of scene conditions. Avigilon's bullet cameras also feature wide dynamic range (WDR) capabilities and are vandal resistant for maximum security. These cameras come with onboard storage capabilities, allowing for the storage of footage directly on the device using a standard SD card. The bullet camera is ideal for monitoring a variety of environments that require discreet nighttime coverage, including parking lots, campuses and industrial yards.

#### **KEY FEATURES** BENEFITS Adaptive IR Adaptive IR technology automatically adjusts the IR beam width and illumination levels. to ensure consistent lighting regardless of scene conditions. **Dual Lens Options** 3-9 mm lens and 9-22 mm lens. Wide Dynamic Range (WDR) Adaptive to brightness and darkness in the same scene. Easy to Install Fully motorized lens for remote adjustment of focus and zoom. Extra RJ45 Ethernet connection port. Built for the Outdoors Outdoor-rated with small form factor. Large range of operational temperatures. Onboard storage SDHC and SDXC card compatability for storage of video footage directly on the device.

#### **AVAILABLE RESOLUTIONS**

#### AVAILABLE LENSES



#### MOUNTING OPTIONS AND ACCESSORIES

Junction Box Allows for additional installation options in outdoor environments where through-wall access is limited.







## HD Pro Cameras

Avigilon's HD Pro cameras start at 8 MP and go all the way up to an industry leading 29 MP, providing superior image detail while covering large areas.

Avigilon's 8 MP, 12 MP and 16 MP HD Pro cameras are built on Avigilon's nextgeneration H4 platform to deliver greater processing power, increased frame rates, and improved image quality. When combined with our easy-to-use Avigilon Control Center software, our proprietary HDSM<sup>™</sup> 2.0 technology offers significantly improved bandwidth performance to minimize impact on network resources. These cameras also offer onboard storage capabilities for storing HD footage directly on the device using a standard SD card.

Avigilon's 29 MP camera is available using JPEG2000 compression to maximize coverage and capture incredible image detail.

Avigilon's HD Pro cameras are ideal for environments that have wide coverage requirements including stadiums, airports, parking lots, transportation facilities and critical infrastructure projects.

KEY FEATURES 8 MP to 29 MP resolutions	<b>BENEFITS</b> Capture high-quality, detailed images over vast areas, while providing maximum coverage options.
H.264 Compression*	H.264 compression allows for maximum image quality while minimizing impact on bandwidth and network performance.
Focus and Iris Control of SLR Lenses**	Remote focus for ease of installation and operation.
Increased framerate*	Up to 12 frames per second.
Flexible lens options*	Compatible with both EF and EF-S mount lenses for the best possible optical quality.
Onboard storage*	SDHC and SDXC card compatibility for storage of video footage directly on the device.
LightCatcher™ Technology*	Collects significantly more detail from a low light scene, to deliver higher quality colour images with far less noise than other low light cameras.

\*Feature not available on 29 MP resolution model. \*\* Remote focus offered on 29 MP model, auto focus not offered.

#### **AVAILABLE RESOLUTIONS**

#### AVAILABLE LENSES

Resolution	8 MP	12 MP	16 MP	29 MP	Lens type	EF & EF-S
	3840 X 2160	4608 X 2592	4944 X 3280	6576 X 4834	Lens feature	Auto-iris, when connected to
Coverage width					Lens reduire	compatible lens
(at 40 pixels per foot on target)	€ 82 ft → 25.1 m	100 ft	121ft	← 164 ft → 50.1 m		
Images per second	12	12	10	2		
Compression Type	H.264	H.264	H.264	JPEG2000		
Onboard Storage	Yes	Yes	Yes	No		
LightCatcher™technology	Yes	Yes	Yes	No		

#### **CAMERA OPTIONS**

Dual lighting options<sup>+</sup> Available in color or monochrome options for optimal viewing in day or nighttime settings

<sup>†</sup>Option available on 29 MP resolution model only.

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## H.264 HD Dome Camera

H.264 HD Dome Cameras (available in 1 MP to 5 MP resolutions) operate on Avigilon's upgraded H3 platform to offer greater resolution performance, wide dynamic range (WDR) support, enhanced HDSM<sup>™</sup> features and superior low light performance with Avigilon's innovative LightCatcher<sup>™</sup> technology. These cameras are great for monitoring both daytime and nighttime activities and are available in four configurations: indoor, in-ceiling, outdoor, and outdoor pendant. They feature an integrated lens for remote focus and zoom control and are ONVIE compliant for no-hassle integration with Avigilon Control Center or other leading VMS software. These cameras come with onboard storage capabilities, allowing for the storage of footage directly on the device using a standard SD card. The H 264 HD dome camera is effective for monitoring a variety of environments, particularly those requiring vandal resistance, such as banks, schools, retail outlets, municipal grounds and buildings, hotels, bars and restaurants.

#### BENEFITS **KEY FEATURES** Remote Zoom and Focus With remote zoom and focus included in the lens. installation only requires mounting and aiming. Industry Standards ONVIF compliance allows for integration with Avigilon Control Center and other leading video management systems. H.264 and MJPEG Compression H.264 compression provides high image quality with low bandwidth and minimal storage requirements for high frame rates. Multiple independent streams allow optimization of storage and bandwidth. P-Iris Support Positional iris control allows camera to automatically set iris position to maximize image quality in all lighting conditions. Optional Integrated IR Adaptive IR technology automatically adjusts the IR beam width and illumination levels to ensure consistent lighting regardless of scene conditions. LightCatcher<sup>™</sup> Technology<sup>+</sup> Collects significantly more detail from a low light scene, to deliver higher quality colour images with far less noise than other low light cameras. Onboard storage SDHC and SDXC card compatability for storage of

video footage directly on the device.

#### **AVAILABLE RESOLUTIONS**

Resolution	1 MP	1.3 MP	2 MP	3 MP	5 MP	Le
	1280 X 720	1280 X 1024	1920 X 1080	2048 X 1536	2592 X 1944	Le
<b>Coverage width</b> (at 40 pixels per foot on target)		2 ft	48ft	51ft	64 ft	
<i>3</i> ,		7 m	14.6 m	15.6 m	19.7 m	Le
Images per second	30	30	30	20	13	
Wide Dynamic Range	No	No	No	Yes	No	
LightCatcher™technology	No	Yes	No	No	No	
Onboard Storage	Yes	Yes	Yes	Yes	Yes	

#### AVAILABLE LENSES

Lens type	3-9 mm*	9-22 mm
Lens features	f/1.2, P-Iris, remote zoom and focus	f/1.6, P-Iris, remote zoom and focus
Lens distance	<u>3</u> 74	

#### MOUNTING OPTIONS AND ACCESSORIES

Indoor dome	Surface mount option for ceilings or walls without through-wall access
Outdoor dome	IP66 and IK10 rated vandal-resistant mounting option compatible with MNT-PEND-WALL bracket
Outdoor pendant mount	IP66 and IK10 rated vandal-resistant mounting option with integrated heater
In-ceiling dome	Discreet mounting option for ceilings and walls with through-wall access
Pendant wall mount	Wall bracket for use with outdoor pendant mount
Pole mount	Adapter for use with pendant wall mount
CAMERA OPTIONS	
Integrated IR	Integrated IR (infrared) LEDs provide uniform illumination in complete darkness

\*1.3 MP HD camera only available with 3-9mm lens.







## HD Micro Dome Camera

Avigilon's HD Micro Dome camera (available in 1 MP and 2 MP resolutions) is the industry's smallest high-definition dome camera, enabling a cost-effective transition to HD video surveillance and all the advantages of Avigilon Control Center. This camera operates on Avigilon's H3 platform with enhanced HDSM<sup>™</sup> features to intelligently manage storage and bandwidth. With a horizontal angle of view of 88 degrees, the HD Micro Dome camera can cover an entire room from a single location while providing Avigilon's unparalleled image detail. Available with either surface, in-ceiling or pendant mounting options, the HD Micro Dome camera truly delivers a versatile solution for monitoring activities in a variety of environments including retail, commercial and indoor or outdoor building entrances and hallways.

#### **KEY FEATURES**

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Flexible Installation	Extremely small form factor makes it easy to install, allowing for infinite installation possibilities in retail and commercial settings, or building entrances and hallways.		
High-Definition Resolution	Underpinned by Avigilon's H3 platform, provides unparalleled image detail in 1 MP and 2 MP resolutions.		
Industry Standards	ONVIF compliance allows for a seamless integration with Avigilon Control Center and other leading video management systems.		
Three axis of rotation	Allows the camera to achieve almost every angle with flexible pan, tilt and rotation options for maximum scene coverage.		
Ready for the environment*	Fully sealed camera with IP66 rating allows for flexible installation in almost any environment.		

BENEFITS

\*Surface mount only

#### **AVAILABLE RESOLUTIONS**

#### AVAILABLE LENSES

Resolution	<b>1 MP</b> 1280 X 720	2 MP	Lens type	2.8 mm
Coverage width	1280 X 720	1920 X 1080	Lens feature	f/1.8, factory focused
(at 40 pixels per foot on target)	32 ft 9.7 m	48 ft 14.56 m		
Images per second	30	30		

#### MOUNTING OPTIONS AND ACCESSORIES

Surface mount	Standard surface mount option for ceiling or wall installations	
In-ceiling mount	Discreet low profile mount for indoor applications	
Pendant mount	Vandal-resistant pendant mount option for indoor installations	





### HD PTZ Camera

The HD PTZ camera (available in 1 MP and 2 MP resolutions) offers unsurpassed image quality with precise positioning and predictable high-speed tracking. Underpinned by the H3 platform, the HD PTZ camera features incredible low-light performance and takes advantage of enhanced High Definition Stream Management technology to lower bandwidth and storage requirements. The camera features a 20x optical zoom lens with up to 12x digital zoom, and provides continuous 360° rotation at up to 450° per second. The HD PTZ camera is available in two mounting options: outdoor pendant and indoor inceiling, making it an ideal camera for indoor and outdoor applications requiring manned operations, such as retail, commercial, airports, casinos or city surveillance.

#### **KEY FEATURES** BENEFITS Powerful Zoom Capabilities Capture high quality, detailed images from far distances with built-in 20x optical zoom lens and 12x digital zoom. 360° Continuous Rotation Easily track targets with 360° endless rotation at up to 450° per second. Day/Night Capabilities Incredible low light performance with day and night settings. H.264 and MJPEG Compression H.264 compression provides high image quality with low bandwidth and minimal storage requirements for high frame rates. Industry Standards ONVIF compliance allows for integration with Avigilon Control Center and other leading video management systems. Plug-and-Play Simplified installation with PoE+ power requires no additional power source.

#### **AVAILABLE RESOLUTIONS**

#### AVAILABLE LENSES

Resolution	<b>1 MP</b> 1280 X 720	<b>2 MP</b> 1920 X 1080	Lens type	4.7-94 mm
Coverage	36		Lens features	20x optical zoom, f/1.6, automatic focus
Images per second	30	30		

#### MOUNTING OPTIONS AND ACCESSORIES

In-ceiling mount	Discreet flush mount for indoor applications
Pendant mount	IP66 rated vandal-resistant outdoor mounting option with integrated heater
Pendant wall mount	Wall bracket for use with pendant mount
Pole mount	Adapter for use with pendant wall mount

aviGiLon



# JPEG2000 HD Panoramic Dome Camera

JPEG2000 HD panoramic dome cameras feature four 2 MP sensors for a total resolution of 8 MP. A single installation provides high-resolution 180° or 360° coverage with lenses that are all pre-focused for no-fuss installation. This camera is ideal for monitoring indoor and outdoor environments for sectors such as education, banking, retail, accommodation, and hospitality or for any location where installation points are limited.

<b>KEY FEATURES</b> Panoramic Wide-Area Coverage	<b>BENEFITS</b> Four 2 MP sensors provide 180° or 360° coverage in high-definition from a single camera, minimizing installation needs.
Easy Installation	Factory installed pre-focused lenses means no lens adjustment required during installation.
Multi-Megapixel	Live and post-incident digital PTZ. Reduce number of camera installations.
Alarm Input and Outputs	Synchronize with external alarms and integrate motion detection into your current alarm system.
Audio Recording	Record high-quality audio from any line input or microphone source.





#### **AVAILABLE RESOLUTIONS**

Resolution	8 MP 1600 X 1200 pixels per sensor	<b>8 MP</b> 1600 X 1200 pixels per sensor
Coverage	180°	360°
Lens	4 x 4.4 mm f/2.0	4 x 2.4 mm f/2.0
Images per second	7 (28 for all sensors)	7 (28 for all sensors)

#### **CAMERA OPTIONS**

Integrated heater

Factory-installed heater unit

#### MOUNTING OPTIONS AND ACCESSORIES

Indoor mounting plate	Allows surface mounting with side cable access and mounting to an electrical box
Outdoor mounting base	Creates an IP66 enclosure with IK10 impact rating and allows conduit connection and pipe mounting
Outdoor pendant mount	Creates an IP66 enclosure with IK10 impact rating for connection to industry-standard pendant mounts
In-ceiling mount	Allows the camera to be ceiling-mounted, with only the external dome cover showing
Smoke dome cover	Replacement smoked transparent cover
Pendant wall mount	Gooseneck wall bracket for use with outdoor pendant mount
Metal ceiling panel	For use with the in-ceiling mount to replace or reinforce the existing ceiling tile in suspended ceiling installations
Pole mount	Adapter for use with pendant wall mount





# License Plate Recognition (LPR)

The Avigilon Control Center HD LPR provides single and multi-lane LPR with HD accuracy from a single camera. Fully integrated within Avigilon Control Center and combined with Avigilon's HD LPR Capture Kits, High-Definition LPR captures license plates with high accuracy in all conditions, 24 hours a day.

LPR allows you to import and monitor watch lists, create instant email alerts and on-screen alarms, and perform flexible post-incident plate searches. The system supports Roman and Arabic alphabets and features worldwide license plate recognition.

#### **KEY FEATURES**

High-Definition Resolution

Single Camera, Multiple Lanes

Roman and Arabic Alphabet Support; Automatic Worldwide License Plate Recognition

#### BENEFITS

High-definition resolution delivers images captured in accurate and precise detail.

Provides wide coverage so you need fewer cameras, reducing installation and maintenance costs.

Can be used in markets throughout the world.

Model	Target distance	Mod
1L-HD-LP-35	35 ft / 11 m	2L-⊢
1L-HD-LP-50	50 ft / 15 m	
1L-HD-LP-75	75 ft / 23 m	
1L-HD-LP-100	100 ft / 30m	

odel	Target distance
-HD-LP-40	40 ft / 12 m





Daytime

Nighttime



Avigilon's high-definition Network Video Recorder (NVR) servers and workstations are designed to achieve the highest performance for high-definition video recording and playback. They have been optimized to run the Avigilon Control Center software with High Definition Stream Management (HDSM)<sup>™</sup> technology – providing a complete end-to-end solution for viewing live and recorded high-definition footage.

# NETWORK VIDEO RECORDERS



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# Network Video Recorders

Our Network Video Recorders (NVRs) have Avigilon Control Center preloaded and configured for maximum performance and reliability, making them easy to integrate into any Avigilon surveillance system. NVR servers can record up to 32 MB/s of image data from up to 128 cameras. The NVR workstation is ideally suited for smaller systems and for those needing to view live and recorded image data directly on the NVR (recording up to 10 MB/s of image data from up to 64 cameras).

#### **KEY FEATURES**

Avigilon Control Center Server Software Preloaded and Configured Workstation Configuration

Server Configuration

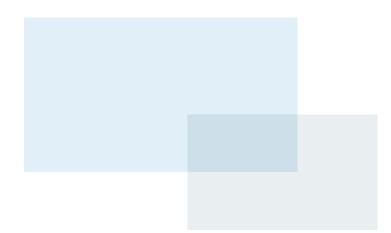
#### BENEFITS

Plug-and-play network video recording solution for managing multi-megapixel IP cameras and analog cameras. Workstation configuration allows stand-alone viewing and recording from one machine for simplicity of deployment. Server configuration in a standard rackmount enclosure for enterprise deployment. **Expansion Storage** Scalable recording solution that can record up to 128 cameras on a single NVR. Enterprise-class hardware ensures maximum reliability. **RAID Storage and Redundant** Enterprise-class hardware ensures Power Supply Options maximum reliability.

HD - NVR Workstation	1.0TB-HD-NVRWS	2.0TB-HD-NVRWS	3.0TB-HD-NVRWS
Storage	1.0 TB	2.0 TB	3.0 TB
Monitor Outputs	2	2	2
Gigabit ethernet connections	1	1	1
Remote configuration and upgrade	Yes	Yes	Yes
Progressive loss-less recordings	Yes	Yes	Yes

HD-NVR Server	3.0TB-HD-NVR2	5.0TB-HD-NVR2	10.0TB-HD-NVR2	15.0TB-HD-NVR2	21.0TB-HD-NVR2
Storage	3.0 TB	5.0 TB	10.0 TB	15.0 TB	21.0 TB
Hot-swappable drives	Yes	Yes	Yes	Yes	Yes
Expansion storage available	Yes	Yes	Yes	Yes	Yes
Gigabit ethernet connections	2	2	2	2	2
Chassis configurations	2U Rack Mount	2U Rack Mount	2U Rack Mount	2U Rack Mount	2U Rack Mount
Tamper-resistant data storage	Yes	Yes	Yes	Yes	Yes

HD - NVR Server options	Descriptions
HD-NVR2-2ND-PS	Redundant power supply
HD-NVR-EXP2-10TB	10 TB RAID 6 expansion, 2U rack mount
HD-NVR-EXP2-20TB	20 TB RAID 6 expansion, 2U rack mount
HD-NVR-EXP2-30TB	30 TB RAID 6 expansion, 2U rack mount
HD-NVR2-EXP2-CARD	Expansion card for connecting storage expansion to an HD-NVR
HD-NVR2-LPRPROC	Additional processor and memory for running HD LPR



# HD VIDEO APPLIANCE







# HD Video Appliance

The Avigilon HD Video Appliance is a powerful security combination that offers a video recorder, network switch and storage, all integrated into a single easy-to install solution. This simplified system design greatly reduces costs and installation times, helping you avoid the costs and headaches typically associated with installing a full security system. And best of all, it comes preloaded with Avigilon<sup>™</sup> Control Center (ACC) software, providing you with the quickest route to high definition video surveillance and the benefits that superior image detail can provide. The compact and powerful 8 port model

is an ideal turnkey solution for small video surveillance deployments, while the 16 and 24 port Pro models are perfect for advanced installations requiring increased camera support, larger storage and superior overall performance.

#### **KEY FEATURES**

Pre-loaded with Avigilon Control Center software	Reduces set up time and provides quicker access to high-definition video footage.
Embedded PoE Managed Switch	Quick and easy installation, with 8, 16 and 24 port options.
Range of Storage Capacities	Address varying retention requirements with 2 TB to 12 TB storage options.
RAID Storage	High availability with disk drives designed for video surveillance.
Maximum camera resolution	Supports up to 29 MP resolution to deliver superior image detail and maximum coverage.*

BENEFITS

\*Requires Enterprise edition license

HD Video Appliance	8 port	16 port	24 port
Storage	2 or 4 TB	6, 9 or 12 TB (RAID 5)	9 or 12 TB (RAID 5)
Monitor outputs	2	2	2
Gigabit Ethernet connections	2	2	2
Total PoE output	70 W	270 W	270 W
Avigilon Control Center edition	Core with 8 ch (Standard and Enterprise compatible)	Standard with 16 ch (Enterprise compatible)	Standard with 24 ch (Enterprise compatible)

Get the benefits of Avigilon high-definition surveillance while leveraging existing surveillance systems in the most cost-effective way possible. Avigilon analog video encoders allow you to integrate your existing NTSC or PAL analog cameras into an Avigilon high-definition surveillance system.

# VIDEO ENCODERS

# Analog Video Encoders



Avigilon analog video encoders minimize bandwidth and storage requirements while capturing high-quality surveillance footage (in full resolution of up to 30 images per second per analog camera) for greater coverage and enhanced overall protection.

Using standard network equipment, the analog video encoder seamlessly integrates with Avigilon Control Center and NVRs to create a network-based surveillance solution with unmatched performance, ease of use, and ease of installation. Plus, they also feature 3D motion-adaptive de-interlacing for sharper, more accurate video.

<b>KEY FEATURES</b> High Image Rates	<b>BENEFITS</b> Record up to 30 IPS at 4CIF resolution from each port for a total of 120 IPS from all four ports.
PTZ Support	RS-485 Port available for controlling standard PTZ units.
Alarm Input and Outputs	Synchronize recording with external alarms and integrate camera motion detection into existing alarm systems.
Easy to Install	Rackmount kit allows 3 encoders (for a total of 12 analog cameras) in 1U of rackspace.
Supports H.264 Compression	Allows flexibility to support many different systems, including ONVIF.

Model	Pixel layout	Compression	Maximum images per second (IPS)	Number of ports	Video format	Image type	Audio inputs	Recommended application
ENC-4P-H264	up to 768 x 576	H.264 / MJPEG	120	4	NTSC or PAL	Color or Mono	4 inputs / 4 outputs	Integrating legacy analog cameras into an Avigilon high-definition surveillance system while supporting four input and four output audio channels

Whether you're looking to enhance your existing system or optimize the experience of your complete Avigilon high-definition surveillance solution, Avigilon offers a variety of accessories and services to complete your system.

# ACCESSORIES

# USB Professional Joystick Keyboard



The USB joystick keyboard allows you to have easy and complete control of all the functionality of the Avigilon Control Center Client for live, playback and alarm management.

KEY FEATURES	BENEFITS
Single Control for System Management	Convenient source that allows you to easily manage the functionality of Avigilon Control Center.
Left- and Right-Handed	Easy-to-use, ergonomic design.
Conventional and Digital PTZ via Three-Axis Joystick	Speed and flexibility that is unmatched by conventional operation.

## Power Over Ethernet Accessories



Provide data and power over a single cable for easier installation of Avigilon cameras and encoders with our Power Over Ethernet accessories. They support a wide assortment of features, including dual firmware images and redundant stacking, to maximize your system's availability.

KEY FEATURES	BENEFITS
8- and 24-Port-Managed Gigabit Switches	Support high throughput and prioritizes applications for maximum performance.
Single Port Injector	Streamline networks for convenience.
PoE Powered Extenders to Extend Cable Length Limits	Reduce the number of accessory power cables with convenient extension.

# Camera Enclosures



Camera enclosures can protect equipment from weather and vandals. Accessory brackets are also available (or included with housing) to support common mounting methods.

KEY FEATURES	BENEFITS
Ready for the Environment	Reliable construction ensures vandal resistance in indoor and outdoor environments.
Internal Heater and Blower Options	Demonstrates improved performance in extreme temperatures.
Variety of Sizes	Ensures the best-matched enclosure for different camera formats.



### Lenses

Brilliant colors, incredible clarity and excellent depth of field are provided by Avigilon high performance lenses, for professional grade image quality.

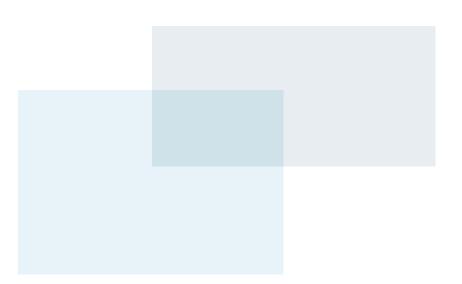
#### **KEY FEATURES**

E/EF Mount Lenses

#### BENEFITS

Available in a large variety of fixed and variable focus lenses for Pro Series models providing enhanced image quality. Avigilon's end-to-end high-definition surveillance solutions are simply beyond compare. Only Avigilon can provide you with exceptional value and superior image detail that ensures you always get the best evidence.

If you wish to learn more, browse the attached DVD or visit avigilon.com





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