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Avigilon Control Center™ 7 Software

ACC™ software is easy-to-use video management software that optimizes the way security professionals manage and interact with high-definition video. It efficiently captures and stores HD video, while intelligently managing bandwidth and storage using our patented High Definition Stream Management (HDSM) technology. Version 7 of the software introduces an entirely new way to monitor live video through its Focus of Attention interface, enabling operators to see at a glance what is happening across the entire site and more effectively triage and respond to the most important events.

Focus of Attention Interface

The Focus of Attention interface redefines the experience for monitoring live video. It helps increase operator effectiveness by providing an overview of events occurring across all cameras in the site, including Avigilon analytic events, Unusual Motion Detection (UMD) events, motion events, and alarms. Operators can quickly triage the most important events at a given time by reviewing the associated live and recorded video to determine if a response is required.

Avigilon Appearance Search™ Technology

Avigilon Appearance Search technology is a sophisticated artificial intelligence (AI) search engine that enables investigators to sort through hours of footage with ease and quickly locate a person or vehicle of interest across an entire site. Confirmed matches can also be used to initiate additional searches from other ACC sites. Search for a person of interest by entering their physical description, or by finding an example in recorded video. The search engine recognizes characteristics of a person's face to find matches, even if the person's clothing changes over time. Using Avigilon Appearance Search technology can dramatically improve incident response time and enhance forensic investigations by allowing investigators to build robust video evidence and create a powerful narrative of events.

Self-Learning Video Analytics

ACC video management software enables analytic events and alarms to be viewed and searched through an intuitive user interface. Real-time events and forensic capabilities detect and notify operators of scene changes and rules violations.

Unusual Motion Detection

UMD is an advanced AI technology that brings a new level of automation to surveillance. Without any predefined rules, UMD technology continuously learns what typical activity in a scene looks like, and then detects and records motion anomalies. UMD is supported by the H4A, H4 SL and H4 Mini Dome camera lines.

Recording NVR Platforms

Purpose-Built for ACC Software and Avigilon Appearance Search Technology

ACC software is pre-installed and configured on HD Video Appliances, HD Network Video Recorders (NVRs), HD NVR Workstations, ACC Edge Solution (ES) HD Recorders, ACC ES Analytics Appliances and the H4 ES camera line. You can also install the stand-alone ACC software to meet the needs of a wide variety of installations. Our NVRs come pre-installed with a GPU to enable our patented Avigilon Appearance Search technology.

Advanced Avigilon Control Center Features

HDSM™ Technology
Efficiently compresses and preserves image quality while intelligently managing HD image transmission throughout your Avigilon system — sending only the requested portions of captured images to operator workstations.

HDSM SmartCodec™ Technology Support
Avigilon's HDSM SmartCodec technology automatically optimizes compression levels for regions in a scene, to maximize bandwidth while still maintaining image quality.

Avigilon Appearance Search Technology
Allows you to quickly search recorded video to find instances of a person or vehicle across all sites using cameras with Avigilon self-learning analytics. Search for a person by selecting specific physical descriptions, including upper lower clothing color, hair color, gender and age group.

Intelligent Search
Powerful search tools enable you to quickly search recorded video for motion, the presence of classified objects (people or vehicles), background changes in the scene (thumbnail search), and for events.

Simple Camera and Server Installation
Plug-and-play capabilities for NVRs and cameras that automatically identify themselves on the network, without manual configuration or searching.

Avigilon Presence Detector™ Support
The Avigilon Presence Detector (APD) sensor is a small form factor impulse radar device with self-learning radar analytics that accurately detects the presence of a person even if they have stopped moving or are hidden. It has the ability to detect presence through blankets, cardboard, wood and drywall.

License Plate Recognition (LPR) Analytics
ACC 7 software features a second generation LPR analytics engine with easy configuration and improved accuracy for faster security response. Multiple license watch lists can trigger unique ACC rules when detecting a match.

ACM™-ACC interoperability
The ACC system receives, processes, and acts on ACM door events, hardware input events, and access grants, enabling operators to unlock access doors directly from a camera view. Identity Verification enables users to see ACM system credentials dynamically displayed with ACC camera views. Identity Search enables users to visually verify access events, and initiate an Avigilon Appearance Search across the entire site for the same person.

Alarm Escalation
Create complete end-to-end workflows for monitoring, assigning, and acknowledging alarms.

ACC Mobile Software
Push alarm notifications, live and recorded video, audio talkdown, self-learning video analytics overlays, digital output triggers, and PTZ control for Android™ and iOS mobile devices.

Detailed Management, Monitoring, and Reporting of System Status and Security
Detailed logs of storage, network, and overall system status to help ensure the highest possible system uptime for critical applications.

POS Transaction Engine
Link HD surveillance footage (viewed instantly) with transaction data to address compliance requirements and help reduce shrinkage and theft.

Scalable Integration with External Systems
Distributed architecture features .NET-based and REST-based APIs that can easily be integrated with other systems, such as access control and building management.

ONVIF® Profile S and Profile T Compliant VMS
ONVIF Profile S and Profile T compliance ensures interoperability between IP based ONVIF conformant security devices regardless of manufacturer.

Unusual Motion Detection
UMD technology enables fast video search and is designed to reduce hours of work to minutes by narrowing potentially thousands of motion events to a handful. This allows operators to focus their attention on video footage needing further investigation.

H4 Video Intercom Support
Video Intercom support provides operators with visual and audio verification of visitors. The H4 Video Intercom integration uses wide dynamic range and echo canceling technologies for clear viewing and two-way communication with visitors.

Light and Dark UI Themes
Select between light and dark user interface themes to make the software easier to view in environments with different lighting conditions.

System Architecture

Core, Standard & Enterprise

To create a system most suited 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 a cost-effective way. ACC Core software 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	75	300+*
Number of cameras per site	24	75	10 000+*
Number of servers per site	1	1	100+*
Number of client licenses per server	2	10	Unlimited
High Definition Stream Management (HDSM) Technology	Yes	Yes	Yes
HDSM SmartCodec Technology Support	Yes	Yes	Yes
Dual Streaming for ONVIF compliant cameras	Yes	Yes	Yes

* Although no limits are imposed by licensing, actual limits will depend on the hardware environment. Avigilon has tested up to the numbers indicated here

DEVICE SUPPORT	CORE	STANDARD	ENTERPRISE
Automatic device discovery	Yes	Yes	Yes
Third-party IP cameras & encoders	Yes	Yes	Yes
HD Pro cameras	No	No	Yes
Avigilon Presence Detector (APD) sensor	Yes	Yes	Yes
H4 HD cameras with self-learning video analytics	Yes	Yes	Yes
HD cameras with self-learning video analytics	Yes	Yes	Yes
HD Micro Dome, HD Multisensor, HD Panoramic, HD PTZ, IR PTZ, H4 Fisheye, H4 SL cameras, H4 Mini Dome	Yes	Yes	Yes
H4 Video Intercom	Yes	Yes	Yes
ONVIF compliant cameras & encoders	Yes	Yes	Yes
Avigilon encoders	Yes	Yes	Yes
Avigilon Artificial Intelligence Appliance	No	No	Yes
H.264 support	Yes	Yes	Yes
MPEG4 support	Yes	Yes	Yes
MJPEG support	Yes	Yes	Yes
JPEG2000 support	Yes	Yes	Yes

CLIENT	CORE	STANDARD	ENTERPRISE
Powerful, easy-to-use client interface	Yes	Yes	Yes
Focus of Attention interface	No	No	Yes
Video analytics overlays (Self-learning video analytics, Unusual Motion Detection)	Yes	Yes	Yes
Joystick support	Yes	Yes	Yes
Selectable light or dark interface theme	Yes	Yes	Yes
ACC Mobile 3 app / Web Endpoint including mobile alarm notifications	Yes	Yes	Yes
Saved views	No	Yes	Yes
Maps with configurable icons and camera thumbnail previews	No	Yes	Yes
Web pages	No	Yes	Yes
Active Directory import	No	No	Yes
Windows user authentication	No	No	Yes
Two Factor Authentication	Yes	Yes	Yes
Password strength meter	Yes	Yes	Yes
Editable Site View	Yes	Yes	Yes
Intelligent Virtual Matrix	No	No	Yes
Collaborative investigations	No	No	Yes
Multi-camera export with optional password protection	Yes	Yes	Yes
Multi-camera privacy blurred export from Avigilon Appearance Search	No	No	Yes
Hourly configurable recording schedule	Yes	Yes	Yes

SEARCHING	CORE	STANDARD	ENTERPRISE
Avigilon Appearance Search Technology	No	No	Yes
Search for a person by selecting specific physical descriptions (gender, age category, hair color, upper body clothing color, lower body clothing color)	No	No	Yes
Search for a person by Identity supplied by ACM system	No	Yes	Yes
Unusual Motion Detection Timeline filtering wtih Skip Play	Yes	Yes	Yes
Intelligent motion search	Yes	Yes	Yes
Thumbnail search	Yes	Yes	Yes
Event search	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
Avigilon developed and supported integrations	No	Yes*	Yes
3rd party system integrations	No	Yes	Yes

*CommScope® iPatch®, RS2 Access It!®, DDS Amadeus 5 and DSX only

AVIGILON'S ACCESS CONTROL MANAGER (ACM) AND ACC SYSTEM INTEROPERABILITY	CORE	STANDARD	ENTERPRISE
ACM system door and panel input event triggers	No	Yes	Yes
ACM system door access grants	No	Yes	Yes
ACM system shared operator access	No	Yes	Yes
ACM Identity Verification	No	Yes	Yes
ACM Identity Search	No	Yes	Yes

ADDITIONAL FEATURES	CORE	STANDARD	ENTERPRISE
E-Mail event notification (motion & system event)	Yes	Yes	Yes
Central station notifications including ANSI/SIA DC-09-2013	No	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
Rule triggers	No	51	Unlimited
Avigilon Presence Detector event trigger	No	Yes	Yes
Self-learning video analytics event configuration	No	Yes	Yes
Avigilon Artificial Intelligence Appliance analytics configuration	No	No	Yes
Redundant recording	No	No	Yes
Failover connections	No	No	Yes
ACC Client alarm notifications and escalation	No	No	Yes
One-time Video Archive	No	Yes	Yes
Tiered Storage Management with Continuous Archive	No	No	Yes
License Plate Recognition with multiple match lists	No	No	Yes
Two person authenticated recorded video viewing	Yes	Yes	Yes
Camera Replacement	Yes	Yes	Yes
Standby/Privacy mode for cameras	No	Yes	Yes

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

System Requirements

NOTE: Run Windows Update before launching the Avigilon Control Center software. NVR recording throughput and retention times can vary according to the number of cameras, camera resolution, estimated percent of motion, continuous recording settings and predefined retention period. For full server performance, choose an Avigilon Certified Solution option.

AVIGILON CONTROL CENTER CLIENT SOFTWARE

AVIGILON CERTIFIED SOLUTIONS	DISPLAY MODEL NUMBER	KEY FEATURES
2 Monitor Professional High Performance Remote Monitoring Workstation	HD-RMWS3-2MN	• Preloaded with Avigilon Control Center (ACC) Client software. • Supports high resolution monitors. • Includes the adapters and accessories for quick deployment. • Avigilon warranty and support included.
4 Monitor Professional High Performance Remote Monitoring Workstation	HD-RMWS4-4MN	

SOFTWARE SYSTEM REQUIREMENTS	MINIMUM	RECOMMENDED
Operating System	Windows 8.1 (64-bit) or Windows 10 (64-bit) Microsoft .NET 4.6.2	Windows 10 (64-bit) Microsoft .NET 4.6.2
Processor	Intel® dual-core CPU (2.0 GHz)	Intel® Core™ i5 (Quad-core, 3.3 GHz)
System RAM	4 GB DDR3	8 GB DDR4
Video Card	PCI Express, DirectX 10.0 compliant with 256 MB RAM	NVIDIA® Quadro P620
Network Interface	1 Gbps	1 Gbps
Hard Disk Space	500 MB	500 MB

AVIGILON CONTROL CENTER SERVER SOFTWARE

AVIGILON CERTIFIED SOLUTIONS	DISPLAY MODEL NUMBER	KEY FEATURES
HD NVR Premium	HD-NVR4-PRM-64TB / 96TB / 128TB / 157TB	• Optimized for video surveillance applications in a 24/7/365 environment • ACC Server software is preinstalled, configured and enhanced for optimal system compatibility • Certified for the Avigilon surveillance environment - ACC software, LPR, Web Endpoint, Analytics, HDSM and 1-30MP cameras • High throughputs of up to 1800 Mbps • Documented network architecture for a wide variety of applications • Avigilon enhanced warranty and premium support included • Access to Avigilon System Design Tool (SDT) to calculate storage requirements
HD NVR Standard	HD-NVR4-STD-16TB / 24TB / 32TB / 48TB	
HD NVR Value	HD-NVR3-VAL-3TB / 6TB / 12TB / 18TB	

SOFTWARE SYSTEM REQUIREMENTS	MINIMUM	RECOMMENDED
Operating System	Windows Server 2012 R2, Windows 8.1 (64-bit) or Windows 10 (64-bit), Windows Server 2016, Windows Server 2019	Windows Server 2016
Processor	x86 64 bit dual-core (1.9 GHz)	Intel® Xeon® E5 v3 (6 cores, 1.9GHz)
System RAM	4 GB DDR3	16 GB DDR4
Network Interface	1 Gbps	4 x 1 Gbps
Hard Drives	SATA-II 7200 RPM Enterprise Class Hard Drives	SATA-III 7200 RPM Enterprise Class Hard Drives

AVIGILON CONTROL CENTER SERVER WORKSTATION

AVIGILON CERTIFIED SOLUTIONS	DISPLAY MODEL NUMBER	KEY FEATURES
HD Video Appliance	VMA-AS2-8P2 / VMA-AS2-8P4 / VMA-AS2-16P06 VMA-AS2-16P09 / VMA-AS2-16P12 / VMA-AS2-24P12 VMA-AS2-24P18 / VMA-AS2-24P24	• Preloaded and configured with Avigilon Control Center (ACC) video management software • High-performance recording capacity • Throughputs of up to 400 Mbps • Avigilon warranty and support included • Access to Avigilon System Design Tool (SDT) to calculate storage requirements
ACC ES HD Recorder	VMA-RPO-4P2 / VMA-RPO-4P4	
ACC ES Analytics Appliance	VMA-RPA-4P2 / VMA-RPA-4P4	
ACC ES 8-Port Appliance	VMA-ENVR1-8P4 / VMA-ENVR1-8P8	
HD NVR Workstation	HD-NVRWS3-8TB	

SOFTWARE SYSTEM REQUIREMENTS	MINIMUM	RECOMMENDED
Operating System	Windows 8.1 (64-bit) or Windows 10 (64-bit)	Windows 10 (64-bit)
Processor	Intel Quad-core CPU (2.0 GHz)	Intel Core i5 (Quad-core, 3.3 GHz)
System RAM	4 GB DDR3	8 GB DDR4
Network Interface	1 Gbps	1 Gbps
Video Card	PCI Express, DirectX 10.0 compliant with 256 MB RAM	NVIDIA Quadro P620
Hard Drives	SATA-II 7200 RPM Hard Drives	SATA-III 7200 RPM Hard Drives

AVIGILON APPEARANCE SEARCH TECHNOLOGY

Avigilon Appearance Search technology requires the ACC Analytics Service to be installed on the same computer as the ACC Server software, and must meet the listed system requirements:

AVIGILON CERTIFIED SOLUTIONS	DISPLAY MODEL NUMBER	KEY FEATURES
Analytics Kit for Avigilon Appearance Search Software	HD-NVR-ANK2-1	Tested and verified to provide enough processing power to run Avigilon Appearance Search feature.

SOFTWARE SYSTEM REQUIREMENTS	
NVIDIA GPU Requirements	4 GB RAM - NVIDIA Pascal™ or NVIDIA Maxwell™ architecture - CUDA compute capability 5.2 or 6.1 - Windows x86_64 Driver Version 410.48 or above

AVIGILON CONTROL CENTER MOBILE 3.X SOFTWARE

ACC Mobile version 3.x is currently only available for the listed device platforms and requires the ACC Web Endpoint software. The ACC Web Endpoint software comes pre-installed on ACC ES HD Recorder and ACC ES Analytics Appliance. For NVR systems and HD Video Appliances, it should be installed on the same server as the ACC Server software.

Platforms	Android version 5.0 or later	iPad with iOS 10 or later iPhone with iOS 10 or later iPod touch with iOS 10 or later
Procesesor	n/a	64-bit (Apple A7 or later)

AVIGILON CONTROL CENTER LPR PLUGIN

Avigilon Control Center LPR Plugin is supported on the listed operating systems.

Operating System	Windows Server 2012 R2, Windows 8.1 (64-bit) or Windows 10 (64-bit), Windows Server 2016, Windows Server 2019

Avigilon certified solutions are recommended for LPR solutions.

Some images of the product interface have been simulated for illustrative purposes.

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