sound
products
audio·video·security

PROPOSAL   14829   April 30, 2018

PAGE 1

Santa Fe Trail High School / USD 434

15701 S. California

Carbondale   KS   66414

The following proposal shall include complete installation of all listed equipment and programming for the Avigilon Control Center and Network Video Recorder Appliance.

Featured with this addition shall include the following:
--One HD NVR Appliance with 12.0 TB Storage shall be included for dedicated recording of all system cameras.
--Twenty-Four HD camera license shall be included for the Avigilon Control Center system as part of the NVR Appliance.
--Three 5.0MP Outdoor Bullet Cameras w/ Infrared Illuminator shall be positioned outdoors front loop, front parking and football concessions area.
--Four 360 12MP 360 Degree Fisheye dome cameras shall be installed at Front Halls Cross Points, Lobby and Cafeteria.
--Two 360 6MP 360 Degree Fisheye dome cameras shall be installed in the Dome Breezeways
--Eight 4-Channel Video Encoders: Existing Cameras will be Encoded to IP to be included on the **Avigilon Control System**. Relocation for some cameras in front halls to provide coverage in the hall doorways/blind spots. Four to be moved to Basement w/Encoder.

Please note: All operator workstations (PC and Monitors) shall be provided by the District IT Department. Sound Products will install Avigilon Control Center software on each workstation. Cable or Fiber if not present from the dome it closets to the basement it closet shall be provided by the District IT Department.

AVIGILON CONTROL CONTROL CENTER CCTV SYSTEM

1	VMA-AS2-24P12	Avigilon HD Video Appliance, 24 Port, 12TB, 24 ACC Standard License
1	5.0L-H4A-B02-IR	Avigilon 5.0 Megapixel (1080p) IR, Bullet Camera, 9-22mm, Analytics
2	5.0L-H4A-B01-IR	Avigilon 5.0 Megapixel (1080p) IR, Bullet Camera, 3-9mm, Analytics
3	H4-BO-JBOX1	Avigilon HD Bullet Camera Junction Box
4	12.0-H4F-DO1-IR	Avigilon 12.0 MP 360 Fisheye Camera, Day/Night, IR, Microphone
2	6.0L-H4F-DO1-IR	Avigilon 6.0 MP 360 Fisheye Camera, LightCatcher, Day/Night, IR
1	H4F-MT-NPTA1	Avigilon Pendant Adapter for H4F Cameras
8	ENC-4P-H264	Avigilon 4-Port H.264 Analog Video Encoder
3	ENC-BRK1U	Avigilon Rack Kit for Three Avigilon Analog Encoders 1U
3	SG300-10P	CISCO 8-port Gigabit PoE Stackable Managed Switch
4	MGBSX1	CISCO Fiber Transceiver

TOTAL (less tax) $35,585.80

Terms: Net 30

Prices Good For   30   Days

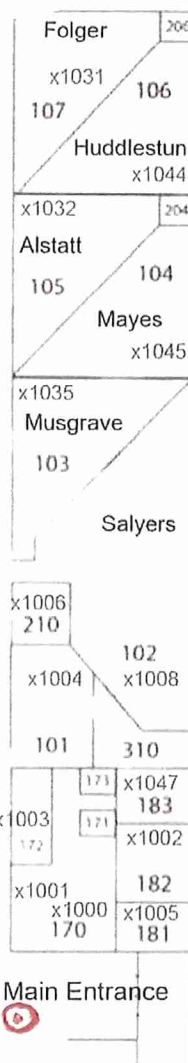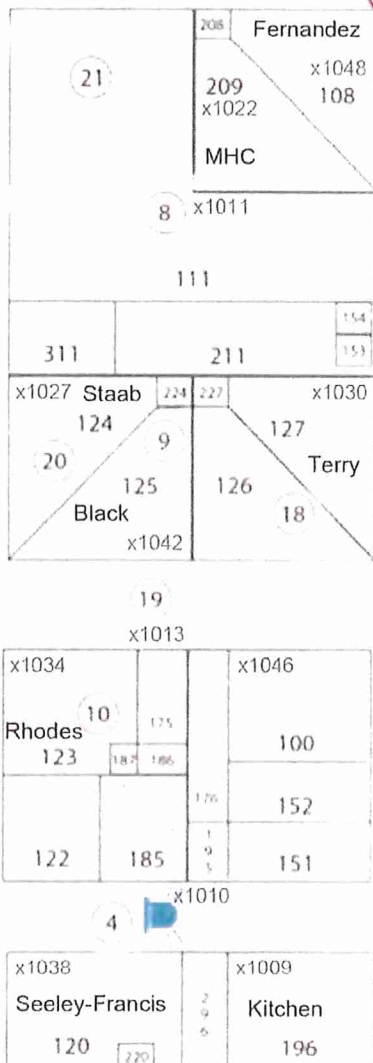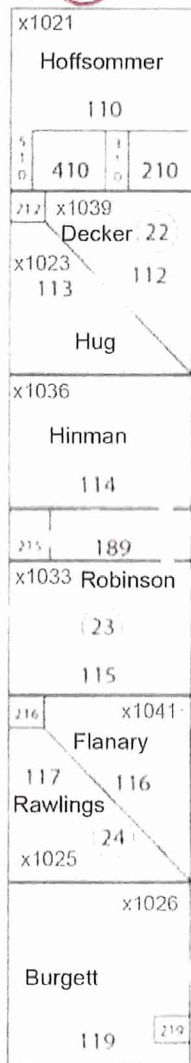**MONTY EHRLICH**
ACCOUNT MANAGER

High School Main Level

5MP L

5MP L

x1021
Hoffsommer
110

510 | 410 | 210

212 x1039
Decker 22

x1023
113 | 112

Hug

x1036
Hinman
114

215 | 189

x1033 Robinson
(23)
115

116 | x1041
Flanary
117 | 116
Rawlings
24
x1025

x1026

Burgett
119 | 219

7

6

(20)

5

25

208 Fernandez
(21)
209 | x1048
x1022 | 108
MHC

8 x1011

111

311 | 211

154
153

x1027 Staab | 224 227 | x1030
124 | 127
(9)
Terry
125 | 126
Black | (18)
x1042

19
x1013

x1034 | x1046
(10) 175
Rhodes
123 | 187 186
100
176
152
1 9 3
122 | 185 | 151

x1010
(4)

x1038 | x1009
Seeley-Francis | 2 6 6 | Kitchen
120 | 220 | 196

12

17

11

Folger 206
x1031
107 | 106

Huddlestun
x1044

x1032 204
Alstatt
105 | 104

Mayes
x1045

x1035
Musgrave
103

Salyers

x1006
210
102
x1004 | x1008

101 | 310

173 | x1047
183
x1003 | 171
172 | x1002

x1001
x1000 | x1005
170 | 181
182

Main Entrance

16

2

160

197 | (1)

15

1 siren-strobe outside High School facing parking area
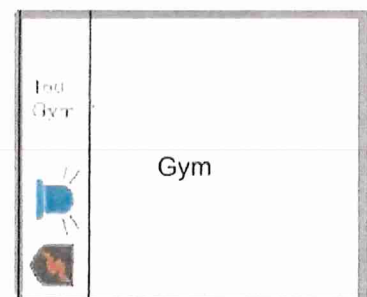
Aruba 205 AP MAC Addresses

Upper Level

1 04BD88C17186
2 04BD88C16966
3 04BD88C16962
4 04BD88C16956
5 04BD88C17124
6 04BD88C1718A
7 04BD88C17176
8 04BD88C1695E
9 04BD88C17194
10 04BD88C17188
11 04BD88C16960
12 04BD88C17172
15 04BD88C171A4
16 04BD88C170F0
17 04BD88C17154
18 04BD88C1718E
19 04BD88C1716E
20 04BD88C17156
21 04BD88C1716C
22 04BD88C17192
23 04BD88C16972
24 04BD88C1719C
25 04BD88C1718C

5MP V
To Pole mounted camera aimed at FB Concession.

6 mp Fisheyes Breezeways for Dome

Gym

sound products

Security Video Systems Reference List

Shawnee County Department of Corrections
Topeka, KS
515 HD Cameras, Network Video Recorders

Jackson County Jail Complex
Kansas City, MO
200+ Cameras, CPU Matrix, Digital Recorders

Stormont Vail Regional Medical Center
Topeka, KS
Larry Lane
325+ HD Cameras, HD PTZ Domes, CPU Matrix,
Network Video Recorders

Jefferson County North High School
Winchester, KS
Denise Jennings
24 HD Cameras, Network Video Recorder

Seaman High School
Topeka, KS
Terry Morrow
42 Cameras, CPU Matrix, Digital Recorders

Centralia High School
Larry Glatczak
12 HD Cameras, Network Video Recorder

Carbondale Attendance Center
Michael Flax
22 HD Cameras, Network Video Recorder

North Central Kansas Regional Detention Facility
Junction City, KS
Shawn Brandmahl
Cameras CPU Matrix

Junction City High School
Dr. Larry Dixon
32 Cameras, PTZ Domes, CPU Matrix, Multiplexers

Glory Days Pizza
Four Locations, Topeka-Lawrence
George Hughes
64 Cameras, Digital Video Recorders

Embassy Properties
Kansas City, MO
Brian Reilly
10 Downtown Loft Apartment Buildings
100+ Cameras, 10 DVR's

Frankfort High School
Dean Dalinghaus
12 HD Cameras, Network Video Recorder

Kansas ExpoCentre
Topeka, KS
Roy Mitchell
32 Cameras, Digital Video Recorders

Santa Fe Trail High & Middle Schools
Overbrook, KS
40 cameras, Digital Video Recorders

Legends at Village West
Red Development
Kansas City, KS
86 Cameras, 16 PTZ, 4 DVR's, CPU Matrix

Blue Cross Blue Shield of Kansas
Topeka, KS
Dennis Fuller
75 HD Cameras, 6 HD PTZ Domes, Network Video Recorders

Hayden High School
Topeka, KS
Mark Madsen
26 Cameras, Digital Video Recorders

Council Grove High School
Council Grove, KS
Kelly McDiffett
32 Cameras, Digital Video Recorders

Topeka Police Department
Major Jesse Torrez
18 Cameras, PTZ Domes, CPU Matrix, Multiplexer

Hays High School
Hays, KS
Marty Straub
32 Cameras, CPU Matrix, Digital Recorders 28 Cameras, 6 PTZ Domes

Central Heights High School
Bob Stegner
16 Cameras, Digital Video Recorder

Sabetha High School
Sabetha, KS
Todd Evans
9 HD Cameras, Network Video Recorder

Manhattan High School
Harold Statton
25 Cameras, 6 PTZ domes, Multiplexer

Topeka USD 501 Middle Schools:
    Chase Middle School, 19 Cameras, 2 Digital Recorders
    Eisenhower Middle School, 15 Cameras, 2 Digital Recorders
    Jardine Middle School, 15 Cameras, 2 Digital Recorders
    Landon Middle School, 19 Cameras, 2 Digital Recorders
    French Middle School, 18 Cameras, 2 Digital Recorders
    Robinson Middle School, 18 Cameras, 2 Digital Record

Scranton Attendance Center
Scranton, KS
8 cameras, Digital Video Recorder

avigilon™

Avigilon Control Center™ 6 Software
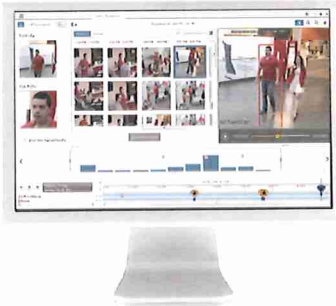
ACC™ software is easy-to-use video management software that optimizes the way security professionals manage and interact with high-definition video. It efficiently captures and stores high-definition video, while intelligently managing bandwidth and storage using our patented High Definition Stream Management (HDSM)™ technology. ACC 6 software combines an intuitive interface with an advanced search function called Avigilon Appearance Search™ video analytics technology. Avigilon Appearance Search technology is a sophisticated deep learning artificial intelligence (AI) search engine for video data that enables users to quickly locate a specific person or vehicle of interest across an entire site.

RECORDING NVR PLATFORMS
PURPOSE-BUILT FOR ACC SOFTWARE AND APPEARANCE SEARCH TECNOLOGY

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. It also works as a stand-alone software, to meet the needs of a wide variety of installations. With the addition of a GPU, our NVRs quickly become capable of running Avigilon Appearance Search technology.

SELF-LEARNING VIDEO ANALYTICS

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

AVIGILON APPEARANCE SEARCH TECHNOLOGY

Avigilon Appearance Search video analytics technology is a sophisticated AI search engine for video data that now incorporates the characteristics of a person's face. It sorts through hours of footage with ease, to quickly locate vehicles of interest or people even if items such as their clothing change over time across an entire site with ease. Using Avigilon Appearance Search technology can dramatically improve incident response time and enhance forensic investigations by allowing operators to build robust video evidence and create a powerful narrative of events.
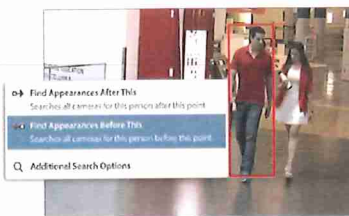
Advanced Avigilon Control Center Features

HDSM™ Technology
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.

HDSM SmartCodec™ Technology Support
Avigilon 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 the entire site from all Avigilon cameras with self-learning analytics.

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 Detection™ 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.

Alarm Escalation
Allows the creation of complete end-to-end workflows for the monitoring, assignment, and acknowledgement of alarms.

ACC Mobile Software
Provides push alarm notifications, access to live and recorded video, and integrated audio talkdown from 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 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 reduce shrinkage and theft.

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.

ONVIF® Profile S Conformant VMS
ONVIF profile S conformance ensures interoperability between IP based ONVIF security devices regardless of manufacturer.

System Architecture

Camera and Device Network

ACC Site — ACC Site — ACC Site

Viewing Network

Third-party integration · ACM™ Integration · ACC Client · Gateway · Virtual Matrix

Internet

ACC Web Client · ACC Mobile
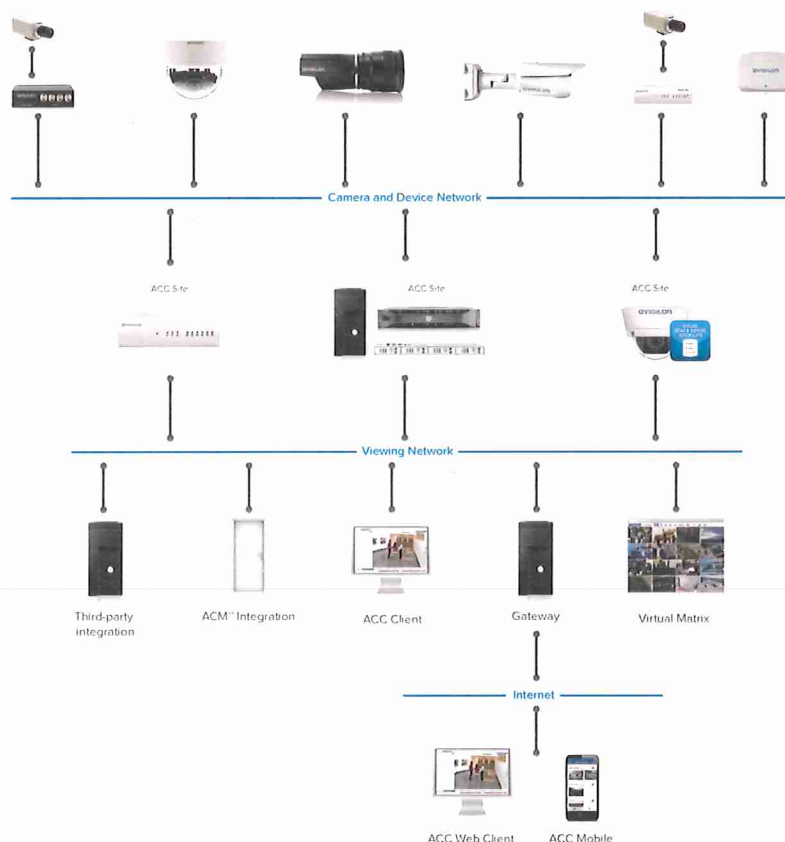
Core, Standard & Enterprise

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	48	300+
Number of cameras per site	24	48	10 000+
Number of servers per site	1	1	100+
Number of client licenses per server	2	5	Unlimited
High Definition Stream Management (HDSM)	Yes	Yes	Yes
HDSM SmartCodec Support	Yes	Yes	Yes
Dual Streaming for ONVIF compliant cameras	Yes	Yes	Yes

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, H4 Fisheye, H4 SL cameras, H4 Mini Dome	Yes	Yes	Yes
ONVIF compliant cameras & encoders	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

CLIENT	CORE	STANDARD	ENTERPRISE
Powerful, easy-to-use client interface	Yes	Yes	Yes
Self-learning video analytics overlay	Yes	Yes	Yes
Joystick support	Yes	Yes	Yes
ACC Mobile software/ HTML5 Web Client / Gateway	Yes	Yes	Yes
Saved views	No	Yes	Yes
Maps with configurable icons and camera thumbnail previews	No	Yes	Yes
Web pages	No	Yes	Yes
Windows user authentication	No	No	Yes
Editable Site View	Yes	Yes	Yes
Intelligent Virtual Matrix	No	No	Yes
Collaborative investigations	No	No	Yes
Multi-camera export	Yes	Yes	Yes
Live export	Yes	Yes	Yes
Hourly configurable recording schedule	Yes	Yes	Yes

SEARCHING	CORE	STANDARD	ENTERPRISE
Avigilon Appearance Search Technology	No	No	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 AccessIt, DDS Aamadeus 5 and DSX only

ADDITIONAL FEATURES	CORE	STANDARD	ENTERPRISE
E-Mail event notification (motion & system event)	Yes	Yes	Yes
Central station notifications	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	21	Unlimited
Avigilon Presence Detector™ event trigger	No	Yes	Yes
Self-learning video analytics event configuration	No	Yes	Yes
Avigilon Access Control Manager™ Door Events and Access Grants	No	Yes	Yes
Redundant recording	No	No	Yes
Failover connections	No	No	Yes
Alarm escalation	No	No	Yes
One-time Video Archive	No	No	Yes
Tiered Storage Management with Continuous Archive	No	No	Yes
License Plate Recognition	No	No	Yes
Two person authenticated recorded video viewing	Yes	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: For all Windows versions, it is recommended that the latest Microsoft service pack is deployed. 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.
4 Monitor Professional High Performance Remote Monitoring Workstation	HD-RMWS3-4MN	• Supports high resolution monitors. • Includes the adapters and accessories for quick deployment. • Avigilon warranty and support included.

SOFTWARE SYSTEM REQUIREMENTS	MINIMUM	RECOMMENDED
Operating System	Windows 7 (32-bit or 64-bit), Windows 8.1 (32-bit or 64-bit) or Windows 10 (32-bit or 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 K620
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-NVR3-PRM-48TB / HD-NVR3-PRM-84TB / HD-NVR3-PRM-137TB	• Optimized for video surveillance applications in a 24/7/365 environment • ACC Server software is preinstalled, configured and enhanced for optimal system compatibility
HD NVR Standard	HD-NVR3-STD-24TB / HD-NVR3-STD-36TB	• Certified for the Avigilon surveillance environment - ACC software, LPR, Mobile Gateway, Analytics, HDSM and 1-30MP cameras • High throughputs of up to 1670 Mbps • Documented network architecture for a wide variety of applications
HD NVR Value	HD-NVR3-VAL-3TB / HD-NVR3-VAL-6TB / HD-NVR3-VAL-12TB / HD-NVR3-VAL-18TB	• Avigilon enhanced warranty and premium support included • Access to Avigilon System Design Tool (SDT) to calculate storage requirements

SOFTWARE SYSTEM REQUIREMENTS	MINIMUM	RECOMMENDED
Operating System	Windows Server 2012, Windows Server 2012 R2, Windows 7 (64-bit), Windows 8.1 (64-bit) or Windows 10 (64-bit)	Windows Server 2012 R2
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
ACC ES HD Recorder	VMA-RPO-4P2 / VMA-RPO-4P4	• High-performance recording capacity • Throughputs of up to 400 Mbps
ACC ES Analytics Appliance	VMA-RPA-4P2 / VMA-RPA-4P4	• Avigilon warranty and support included
HD NVR Workstation	HD-NVRWS3-8TB	• Access to Avigilon System Design Tool (SDT) to calculate storage requirements

SOFTWARE SYSTEM REQUIREMENTS	MINIMUM	RECOMMENDED
Operating System	Windows Server 2012, Windows Server 2012 R2, Windows 7 (64-bit), 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 K620
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-NVR3-ANK1-1	• Tested and verified to provide enough processing power to run Avigilon Appearance Search feature.

SOFTWARE SYSTEM REQUIREMENTS	
NVIDIA® CUDA Compute Capability	5.0 or above
GPU Memory	4 GB or above

AVIGILON CONTROL CENTER GATEWAY

Avigilon Control Center Gateway can be installed on the same computer as the ACC Server software, but for optimal performance results it is recommended that the Gateway be installed separately. The Gateway can handle up to 36 concurrent video streams if installed on a computer with the listed requirements (with recommended specs).

SOFTWARE SYSTEM REQUIREMENTS	MINIMUM	RECOMMENDED
Operating System	Windows Server 2012, Windows Server 2012 R2, Windows 7 (64-bit), 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 quad-core CPU (2.0 GHz)	Intel Core i5 (Quad-core, 3.3 GHz)
System RAM	4 GB DDR3	8 GB DDR4
Hard Disk Space	500 MB	500 MB

AVIGILON CONTROL CENTER WEB CLIENT

Avigilon Control Center Web Client can be accessed from the listed web browsers.

Web Browsers	Internet Explorer version 9.0 or later Chrome version 20 or later	Firefox version 15 or later Safari version 9.0 or later

AVIGILON CONTROL CENTER MOBILE 2.X SOFTWARE

Avigilon Control Center Mobile (ACC Mobile) version 2.x is currently only available for the listed device platforms.

Platforms	Android version 4.x or 5.x	iPad with iOS 7, 8 or 9 iPhone with iOS 7, 8 or 9 iPod touch with iOS 7, 8 or 9

AVIGILON CONTROL CENTER MOBILE 3.X SOFTWARE PREVIEW

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 9 or later iPhone with iOS 9 or later iPod touch with iOS 9 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 7 only