

# ConteralP<sup>®</sup> Bullet EX

**Installation Manual** 

5MP AV5426PMIR-S



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# **About Our Warranty**

## **Global (3 Year) Limited Warranty**

ARECONT VISION COSTAR warrants to Purchaser a "Limited Warranty" that (a) each Product shall be free from material defects in material and workmanship for a period of thirty-six (36) months from the date of shipment, the "Warranty Period"; (b) during the Warranty Period, the Product will materially conform with the specification in the applicable documentation; (c) all "Licensed Programs" accompanying the Product will materially conform with applicable specifications.



# **Camera Overview**

The ConteralP® Bullet EX outdoor-ready megapixel camera features 5-megapixel (MP) resolution for optimum performance. The ConteraIP® Bullet EX combines a day/night mechanical IR cut filter with an integrated motorized 2.7-12mm varifocal remote focus and zoom precision iris (P-iris) lens. The ConteraIP® Bullet EX is ONVIF (Open Network Video Interface Forum) Profile S, G, Q, and T compliant, providing interoperability between network video products regardless of manufacturer. The inclusion of on camera video analytics gives the ConteraIP® Bullet EX the ability to increase situational awareness and gather data for business intelligence. Alarm conditions can be setup to alert security for observed behaviors. Several of the analytic behaviors can also be used for business intelligence data gathering, such as the loitering behavior for tracking dwell time in retail environments. Regardless of the time of day, the ConteralP<sup>®</sup> Bullet EX is prepared for any lighting condition. Enhanced WDR™ (wide dynamic range) at 120dB provides the best visual balance to shaded and bright light conditions, NightView™ offers strong low-light sensitivity for capturing details in extremely poor-lit scenes, and built-in Smart IR LED illumination automatically adjusts output in response to the distance of an object in view to prevent overexposure when the object is very close to the camera. Arecont Vision® was the first to bring H.264 to the mainstream market and recently developed SNAPstream<sup>™</sup> (Smart Noise Adaptation and Processing) technology for reducing bandwidth without impacting image guality. Today we are proud to offer our next generation H.265 with SNAPstream+<sup>™</sup> smart codec capable of delivering high guality video while saving over 50% of the data rate to reduce or prevent strain on the network. The microSD card slot supports up to 256GB of storage capacity for convenient onboard storage. The camera's power can be supplied via a Power-over Ethernet (PoE - IEEE 802.3af) compliant network cable connection. The ConteralP® Bullet EX is IP66 rated for both indoor and outdoor applications. All models feature an impact resistant castaluminum housing capable of withstanding the equivalent of 55 kg (120 lbs) of force.

#### **(i)** CAUTION!

- 1. Do not attempt to service a damaged unit yourself. Refer all servicing to qualified service personnel.
- 2. Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application.
- 3. Always use hardware e.g. screws, anchors, bolts, locking nuts etc. which are compatible with mounting surface and of sufficient length and construction to insure a secure mount.



# **Package Contents**

• AV5426PMIR-S

Description	QTY
AV5426PMIR-S	1
Mounting Template	1
Accessory Pack	1



Cables





# Installation



No.	Description	
1	Supplied Dry Wall Anchors	
2	Supplied Screws (4pcs #8-16 1¼" tapping screws)	
3	Supplied Mounting Template	
4	ConteralP <sup>®</sup> Bullet EX Camera	

NOTE: The camera is suggested to be installed above 3 meters and covered by a minimum 3.1" (8cm) overhang eave.

- 1. Determine a secure location to mount the camera.
- 2. Use the template, anchors, and screws provided to prepare the mounting provisions for the camera installation.
- 3. (Optional/ Recommended) Install AV-JBA-W junction box adapter (sold separately) to the wall using appropriate hardware.



- 4. Install four supplied dry wall anchors using the supplied mounting template.
- 5. (If necessary) To install SD card on the camera, see the "SD Card Installation" section of this manual.

6. Install the supplied rubber plug on the bracket to ensure a water tight installation for outdoor applications.



- 7. Connect the network cable to the camera's RJ45 connector.
- 8. Align four supplied screws with the dry wall anchors, and screw ConteralP<sup>®</sup> Bullet EX camera into place.
- 9. To configure the camera, reference the "camera discovery, set-up and configuration" section.
- 10. Use the supplied security L-key to adjust the bracket to appropriate position. The bracket with 3 axes enables easy installation in any location, including 360° camera body rotation, 90° tilt, 360° bracket rotation.



11. To adjust the zoom and focus, see the "Zoom and Focus" Section of this manual.

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## **SD Card**

1. Use Phillips screwdriver to remove sun shield cover



2. Use Phillips screwdriver to unscrew four screws on the lid, and take off the lid



3. Push SD card into SD card slot, or take SD card out from SD card slot Note: Make sure insert SD card in the correct orientation





#### **Corner Mount**

For a corner mount installation, the AV-JBA-W Junction Box Adapter and AV-CRMA corner mount are required (sold separately). A corner mount should only be attached onto hard corner surfaces including wood, plastic, metal, and concrete.

- 1. Using the Mounting template, prepare the mounting provisions for the camera installation.
- 2. Attach the Junction Box Adapter to the Corner Mount Adapter.
- 3. Remove the conduit plug on the junction box adapter and connect ¾" NPT conduit to the junction box adapter.



Reference #	Description
1	Remove conduit plug
2	Connect <sup>3</sup> / <sub>4</sub> " NPT conduit to junction box adapter (ensure use of water seal tape)

NOTE: Use silicon or water pipe seal tape to make sure no water leakage between conduit pipe and junction box adapter.

- 4. Run the Ethernet cable and outside power cable (if necessary) through the Junction Box Adapter. Ensure the gasket is seated properly.
- 5. Attach the ConteralP<sup>®</sup> Bullet EX camera to the Junction Box Adapter (AV-JBA-W).





Reference #	Description	
1	Attach corner mount adapter to exterior 90 $^\circ$ corner wall	
2	AV-JBA-W junction box adapter	
3	ConteraIP® Bullet EX Camera	
4	Conduit pipe	
5	AV-CRMA corner mount adapter	
6	Apply Teflon water seal tape to the thread of 3/4" NPT pipe to avoid water leakage	

- 6. Using the screws provided (or other hardware), attach the Corner Mount Adapter to an exterior 90- degree corner wall.
- 7. To configure the camera, reference the camera discovery, set-up and configuration section.

#### **(i)** CAUTION!

The captive screws must be used to properly secure the dome cover and camera housing. Failure to use the captive fastener may result in serious injury. When mounting the dome cover to the camera housing, ensure that the gasket is properly seated and not folded. Failure to do so may result in water and dust ingress. Water damage from improper installation is not covered by the warranty!



#### **Pole Mount**

For a pole mount installation, the AV-JBA-W junction box adapter and AV-PMA pole mount are required (sold separately).

- 1. Using the Mounting template, prepare the mounting provisions for the camera installation.
- 2. Attach the Junction Box Adapter to the Pole Mount Adapter.
- 3. Remove the conduit plug on the junction box adapter and connect 3/4" NPT conduit to the junction box adapter.



Reference #	Description	
1	Remove conduit plug	
2	Connect <sup>3</sup> / <sub>4</sub> " NPT conduit to junction box adapter (ensure use of water seal tape)	

# NOTE: Use silicon or water pipe seal tape to make sure no water leakage between conduit pipe and junction box adapter.

- 4. Run the Ethernet cable and outside power cable (if necessary) through the Junction Box Adapter. Ensure the gasket is seated properly.
- 5. Attach the Conteral P<sup>®</sup> Bullet EX camera to the Junction Box Adapter (AV-JBA-W).



#### Conteral P<sup>®</sup> Bullet EX Megapixel Camera



- 6. Use the supplied two Steel Straps to attach the Pole Mount Adapter to the pole and tighten the compression screws.
- 7. To configure the camera, reference the camera discovery, set-up and configuration section.

#### (i) CAUTION!

The captive screws must be used to properly secure the dome cover and camera housing. Failure to use the captive fastener may result in serious injury. When mounting the dome cover to the camera housing, ensure that the gasket is properly seated and not folded. Failure to do so may result in water and dust ingress. Water damage from improper installation is not covered by the warranty!

#### **Electrical Box Adapter**

The electrical box adapter is used to attach the camera to a common single, double or square electrical box. The AV-EBAS is required (sold separately).

- 1. Using the supplied machine screws, match the mounting holes on the electrical box adapter with the threaded holes on the electrical box. Ensure every threaded hole is matched with a mounting hole.
- 2. Attach the electrical box adapter to the user supplied electrical box.

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# **Camera Power Up**

#### **(i)** CAUTION!

This product should be installed by a qualified service technician in accordance with the National Electrical Code (NEC 800 CEC Section 60) or applicable local code. Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application.

#### **CAUTION!**

Make the connections inside a watertight compartment. Isolate unused power wires individually. After connections are made, ensure that the watertight compartment is tightly closed and cables and conduits are properly sealed to prevent ingress of water.

#### CAUTION!

This product is intended to be supplied by a Listed Power Adapter or DC power source, rated (1) 24 VAC , 0.416 A, 50/60Hz ; (2) 12-48 VDC, 0.83-0.2 A ;

(3) 48 VDC, 0.27 A (for PoE), Tma = 50 °C, and the altitude of operation = 2000m. If need further assistance with purchasing the power source, please contact to ARECONT VISION COSTAR LLC for further information."

- 1. Connect the camera to a PoE port on 100Mbps network PoE switch using an Ethernet cable.
- If the camera is powered by an outside power supply, 12~48VDC or 24VAC (red and black wires), connect the power cable.
- 3. Connect the PoE switch to your computer's network port using an Ethernet cable.



LED	Status	Description
Green	Quick Flashing	Link has been established
	Slow Flashing	Normal operation
None	None	No Connection



# Alarm I/O Functions



Connect the Alarm In (DI) connector to the alarm input sensor, and connect Alarm Out (DO) connector to the alarm output signal.

To avoid any damaged, please follow the specification of the part as below:

Alarm In (Wet Contact)	Alarm Out (\	Net Contact)
V sense	V sense	I sense
4.2V±30%	0-80V	50mA (max)

# **Reset to Factory Default**

User should reset the camera to factory default via camera web interface or AV IP Utility.



# Camera Discovery, Setup, and Configuration

For camera discovery and setup, the AV IP Utility is recommended. The software can be found on the CD included with your camera or at: <u>http://www.arecontvision.com/softwares.php</u>

The AV IP Utility has the ability to provide multiple discovery options, including broadcast and multicast, check the status of a camera, change camera settings, import and export camera settings via a .csv file, and update firmware and/or hardware from virtually anywhere with a network connection.

Whether used for large installations that require an update to multiple settings, or smaller installations where only one camera needs changed, the AV IP Utility tool is efficient and convenient for mass or single camera uploads.

The AV IP Utility tool is compatible with all Contera<sup>®</sup>IP cameras. The user manual for the software is included on the CD that came with your camera or available on our website.



#### **Camera Discovery**

1. Locate and double click the AV IP Utility shortcut on the desktop.



2. When the AV IP Utility is launched, it will automatically search the Contera cameras on the network. Or, you can also manually search cameras by clicking "Discovery (Multicast)"

File View Camera Discovery Tools Discovery (Multicast) FW IP						
Mac	IP	Model	FW Version	HW Version	IPN	Status
	10.10.120.18	02CID-100				
00:1A:07:18:A9:F1	10.10.120.44	02CMB-100	35100	01/016D	180301081	Accessible
00:1A:07:18:A4:47	10.10.120.52	05CMB-100	35100	01/016A	180200028	Accessible

3. You can access the camera web user interface by typing the camera IP address on the preferred web browser.



4. If there's no DHCP server presented in the network, the default IP is "192.168.1.168".



## Web Interface Navigation

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Image Video & Audio Focus Network Privacy Mask Event Video Analytics System Options Administration About Support

The entire menu is located on the top of the web interface.

The following camera settings are available on the top of the menu in the web interface, and the user will be direct to the page when they click the tab.

- Image
  - Basic Image Settings
  - Rotate Image
  - Mirror Image
  - WDR (Wide Dynamic Range) Settings
  - Lighting Compensation Frequency
  - Day/Night Mode
  - IR Control
  - OSD (On-Screen Display)
  - ROI (Regions of Interest)
- Video & Audio
  - Show Video Type
  - Control Video with mouse
  - $\circ$  Resolution
  - Main Stream Configuration
  - Sub Stream Configuration
  - Third Stream Configuration
  - Audio
- Focus
  - Zoom & Focus Control
- Network
  - IP Assignment
  - Port
  - DNS
  - IPv6 Settings
  - QoS (Quality of Service)
  - UPnP (Universal Plug and Play)
  - RTSP (Real Time Streaming Protocol)
  - Multicast Stream 1/2/3
  - DDNS (Dynamic DNS)
  - SNMP (Simple Network Management Protocol)
  - SSL (Secure Sockets Layer)
  - FTP (File Transfer Protocol)
  - ∘ 802.1x
  - Privacy Mask
- Event
  - Motion Detection
  - Alarm Handler
  - Digital I/O



- FTP Upload Handler
- SMTP (Simple Mail Transfer Protocol) Notification
- Network Storage
- System Options
  - Firmware Upgrade
  - Reboot & Restore Settings
  - Date/Time
- Administration
  - Administrator settings
  - Viewer Management
- About
- Support



Image



#### Image

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Menu	Feature	Description
Image Brightness: 0	Brightness	Controls the overall brightness of the camera image and works in conjunction with the exposure controls to maintain the image brightness.
Sharpness:     2       1     1       0     1       1     1	Sharpness	Controls sharpness and edge definition of the image. Setting this to lower levels may make overall image appear a bit softer while causing lines and edges in the image to look smoother.
Saturation: 3	Saturation	Controls the color saturation of the image.
Contrast: 50	Contrast	Manually controls Gamma level (affects the overall luminance of the image).
Hue: 50 4 	Hue	Configures the overall hue of the image, the range is 0 ~ 100. Increasing the value will adjust the image hue towards red. Decreasing the value will adjust the image hue towards blue.
Rotate Image 0 90 180 270	Rotate Image:	Digitally rotates image 0°, 90°, 180°, or 270°.
Mirror Image Flip Vertically Flip Horizontally Auto White Balance	Mirror Image: • Flip Vertically • Flip Horizontally	Flips the image horizontally (flip left-to-right) or vertically (flip top-to- bottom). They can be selected at the same time.
	Auto White Balance	Checkbox enables the automatic white balance feature of camera, which will automatically remove unrealistic color cast so that white color is rendered white in the image.

Video & Audio Focus Network Privacy Mask Event Video Analytics System Options Administration About Support

Menu	Feature	Description
WDR Mode Auto HDR: 10	Auto	Auto detects bright backlight, glare or high contrast lighting and automatically selects the WDR level. Note: WDR enabled will decrease the FPS of 5MP camera.
Turn off in low light	HDR	Manually adjusts the intensity of backlight compensation. Note: WDR enabled will decrease the FPS of 5MP camera.
	Turn off in low light	Disables WDR backlight compensation when the light levels drop for better nighttime image quality.
	Turn off in B/W	Disables WDR backlight compensation when the camera is in night mode for better nighttime image quality.
	DWDR	Digital WDR (DWDR) is to enhance dark areas by adjusting the gamma value. This will not impact FPS of 5MP camera.
LDR  Auto Exposure  Stream Profiles  Balance Mode Slow Shutter	LDR	Will not combine long and short exposures into one frame, resulting in better low light performance.
Quality Mode Moonlight Mode Custom Exposure Mode Exposure (ms): 33	Auto Exposure	Automatically adjusts illumination and exposure values.
	Stream Profiles: Balance Mode - Slow Shutter Quality Mode	Balanced Mode:Limits exposure time from 0.1msto 66ms. The camera will keep highest FPS whenSlow Shutter is unchecked.Quality Mode:Limits exposure time from 0.1ms to200ms. This mode is a good compromise betweenreducing noise and motion blur under most lightingconditions, but with an increase in motion blur underlow light conditions.

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#### Conteral P<sup>®</sup> Bullet EX Megapixel Camera



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	Defog Level	Compensates for fog or clouds in the scene.
OSD Camera Name Contera Network Camera	Camera Name	Specifies a name for the camera. The maximum length is 32 characters.
Background Translucent Transparent Text color: White  Text Overlay Top Left OFF T	Background <ul> <li>Translucent</li> <li>Transparent</li> </ul>	Configures the background color of the text overlay. The options are <u>Translucent</u> (light grey) or <u>Transparent</u> .
Top Right OFF   Bottom Left OFF   Softom Right OFF   Apply	Text Color Text Overlay • Off • Date/Time • Camera Name • Camera Name + Date/Time • Custom Text	Options are <u>Black</u> , <u>White</u> , <u>Green</u> , or <u>Yellow</u> . There are four content positions ( <u>Top Left</u> , <u>Top</u> <u>Right</u> , <u>Bottom Left</u> and <u>Bottom Right</u> ) to display the text overlay. <u>Date/ Time</u> : Displays the current date/time. It will force the camera to synchronize the date/time information. <u>Camera Name</u> : Displays the camera name you set. <u>Camera Name + Date/Time</u> : Displays both camera name and date/time information. <u>Custom Text</u> : Displays a customized text.
* Create custom regions of interest by enabling zones below and estecting the desired quality level. Then create the ROI by dragging the mosawer the live image and press "Save Area" or "Del Area".         Stream:       Main Stream ▼         ROI Zone 1:       Enable         Medium ▼       Save Area         Del Area       ROI Zone 2:         Enable       Medium ▼         Medium ▼       Save Area         Del Area       ROI Zone 3:         Enable       Medium ▼         Medium ▼       Save Area         Del Area       ROI Zone 3:         Enable       Medium ▼         Save Area       Del Area         ROI Zone 3:       Enable         Medium ▼       Save Area       Del Area         ROI Zone 4:       Enable         Medium ▼       Save Area       Del Area         ROI Zone 5:       Enable         Medium ▼       Save Area       Del Area	ROI (Regions of Interest)	<ul> <li>ROI (Regions of Interest) is used to select which areas will be monitored and recorded with higher image quality while using lower image quality for other non-ROI zones to save bandwidth and storage.</li> <li>To setup the ROI: <ol> <li>Select <u>Main Stream</u> or <u>Sub Stream</u></li> <li>Enable zones (up to five zones) and select the desired quality level (<u>High</u>, <u>Medium</u>, or <u>Low</u>).</li> <li>Create the ROI by dragging the mouse over the live image</li> <li>Press <u>Save Area</u> or <u>Del Area</u>.</li> </ol> </li> </ul>

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#### Video & Audio

Arecont Vision Image Video & Audio Focus Network Privacy Mask Event Video Analytics System Options Administration About Support

Menu	Feature	Description			
Video	Show Video Type:	Disable Video: Disables live video on the screen.			
Show Video Type Disable Video MJPEG over HTTP H.264 over RTP/UDP * For H.264 streaming, please make sure ActiveX Plugin is installed during VLC installation and axvlc.dll is at exactly the same path as C:\Program Files (x86)\VideoLAN\VLC\axvlc.dll Fit Video to Window	<ul> <li>Disable Video</li> <li>MJPEG over HTTP</li> <li>H.264 over RTP/UDP</li> </ul>	MJPEG over HTTP: This radio button is the default browser display option. No plug in is required as most browsers can decode MJPEG images. H.264 over RTP/UDP: Displays video using H.264. If viewing this way for the first time you will see the following prompt to download the necessary browser plug –in to display the video in the browser using this compression.			
Control Video with Mouse  No Control  PTZ  ROI Exposure Reference  * Mouse-related control requires running MJPEG video	Fit Video to Window	Scales the full field of view image to fit the browser window. When in default unselected images will be displayed in the browser at VGA resolution.			
Click and move to select window to set.     Double click to reset to default settings.	Control Video with Mouse <ul> <li>No Control</li> <li>PTZ</li> <li>ROI Exposure Reference</li> </ul>	<ul> <li>Radio buttons control various functions using the mouse to select them on screen.</li> <li>The function selected can be controlled by left clicking in the image with the mouse and dragging to select an image region relevant to the corresponding control function.</li> <li><u>No Control</u>: Disables mouse control of these functions.</li> <li><u>PTZ</u>: Zooms in the selected region. Double click on the image to restore the image to default.</li> <li><u>ROI Reference</u>: Creates a custom exposure reference using the selected region to customize backlight.</li> </ul>			
Resolution           Left :         0           Top :         0           Right :         1920           Bottom :         1080           Preview         Apply	Resolution: Left Top Right Bottom	Controls the image size and image cropping features. Left, Top, Right, and Bottom numeric fields set custom image size cropping and crop area coordinates in pixels. Supported values are 0 to maximum resolution in pixels (maximum varies based on the sensor resolution being cropped)			



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Third Stream Video Compression MPJEG Resolution 640x360 Frames Per Seconds: 30 (0~30 ) Quality Cow Mid	Video Compression: • MPJEG Resolution	The third stream is designed for the live view on the web interface, the only compression option is MPJEG. The third stream is designed for the live view on web interface, the only Resolution is VGA.			
High     Apply     * "Apply" will apply changes for all three streams settings	Frames Per Seconds	Frame rate adjustment for the camera video stream.			
to the camera.	Quality: Low Mid High	Adjusts the compression level for JPEG images			
Audio	Audio In	Enables the Audio In/ Audio Out features on the camera.			
☑ Audio In Volume ○ High ◎ Middle ○ Low	Audio Out Volume:	Specifies the volume level of Audio In/ Audio Out: High, Middle, or Low.			
Audio Out Volume High Middle Low	<ul><li>High</li><li>Middle</li><li>Low</li></ul>				

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#### Focus

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Arecont Vision	Image	Video & Audio	Focus	Network	Privacy Mask	Event	Video Analytics	System Options	Administration	About	Support

Menu	Feature	Description
Zoom & Focus Zoom : +20 +5 +1 -20 -5 -1 Enable Auto Focus After Zoom Focus : +20 +5 +1 -20 -5 -1	Manual Zoom/ Focus: +20 +5 +1 -20 -5 -1	Numbers indicate the level of Zoom/ focus to adjust the field-of-view.
Full-range Focus Short-range Focus Stop Reset Zoom and Focus Position	Enable Auto Focus Zoom	Camera will Auto Focus after changing zoom lens group position.
	Full-range Focus	Best for scenes that are completely out of focus. The camera automatically scans the full focus range of the scene to find the best focus position.
	Short-range Focus	Best for scenes that are slightly of out of focus. The camera quickly fine-tunes for a precise focus position.
	Stop	Stops any command in progress.
	Reset Zoom and Focus Position	Resets Zoom and Focus lens groups to zero position



#### Network

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Network           IP Assignment           ☑ DHCP           IP Address:         10.10.45.27           Subnet Mask:         255.255.255.0           Default Gateway:         10.10.45.1           Port         (80,1024~65535)           Second HTTP Port:         8080 (8080,1024~65535)           Second HTTP Port:         443 (443,1024~65535)           DNS         Primary DNS:           Primary DNS:         10.5.50.5	IP Assignment: • DHCP • IP Address • Subnet Mask • Default Gateway	<ul> <li>DHCP: If checked, the camera will attempt to obtain its IP address from the DHCP server available on the network.</li> <li>IP Address: Sets the current IP address of the camera.</li> <li>Subnet Mask: Once set, the camera will use these mask bits to determine if a destination is from a different network</li> <li>Default Gateway: Once set, the camera will use send traffic to the specified gateway if the destination is on a different network</li> </ul>			
Secondary DNS:	Port: • HTTP • Second HTTP Port • HTTPs	<ul> <li>HTTP: The port default is 80. It is used to access the camera via the web browser.</li> <li>Second HTTP port: Sets an alternative HTTP port. This port can be useful when the standard HTTP port (80) is not appropriate for this camera.</li> <li>HTTPs: The port default is 443. It can be used when you use HTTPs.</li> </ul>			
	Port: Primary DNS Secondary DNS	Configures the Primary and Secondary DNS.			
IPv6 Settings Enable IPv6 Link-Local: IPv6 Address: Address Prefix:64 (0~127) Default Route: Router Advertisement DNS:	IPv6 Settings: Enable IPv6 IPv6 Address Address Prefix Default Route Router Advertisement DNS	<b>Enable IPv6</b> : Enables IPv6 function. Manually configures <b>IPv6 address</b> , <b>Address</b> <b>prefix</b> , <b>Default route</b> , and <b>DNS server address</b> . <b>Router Advertisement</b> : Enables Router Advertisement			

QoS	Enable QoS	Enables quality of service.					
Enable QoS Video QoS (0-63) : 34 Management DSCP (0-63) : 0	Video QoS	Sets DSCP value for video traffic.					
Apply	Management DSCP	Sets DSCP value for non-video traffic.					
UPnP	Enable UPnP	Enables Universal Plug and Play function.					
Apply							
RTSP	Port	Configures the port number for stream 1 to stream 3. The range is 554/1025~65535.					
Port : 65536 (554, 1025~65535)  Enable RTSP Unicast Stream1 Enable RTSP Stream1 Metadata Path1 : stream1 Link for external media players :	Enable RTSP Unicast Stream	Enables RTSP Unicast for stream 1 (Main stream), stream 2 (Sub Stream), and stream 3 (Third Stream) Enables RTSP stream metadata for stream 1 (Main stream), stream 2 (Sub Stream), and stream 3 (Third Stream)					
Itsp://10.10.45.27.65538/stream1     Enable RTSP Unicast Stream2     Enable RTSP Stream2 Metadata     Path2 : stream2	Enable RTSP Stream metadata						
Link for external media players : rtsp://10.10.45.27:65536/stream2	Path	Configures the pathname for each stream.					
Enable RTSP Unicast Stream3 Enable RTSP Stream3 Metadata Path3 : stream3 Link for external media players : rtsp://10.10.45.27:85536/stream3	Link for external media players	Copies the link from here for external media players					
	Enable RTSP Multicast Stream	Enables RTSP Multicast stream for stream 1 (Main stream), stream 2 (Sub Stream), and stream 3 (Third Stream)					
	Always Multicast	Enables the video streams to start multicast steaming without using RTCP					
	Video IP	Configures the multicast address and the port number to stream video.					

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Multicast	Video Port					
Multicast Stream1						
Enable RTSP Multicast Stream						
Always Multicast	Audio IP	Configures the multicast address and the port number to stream audio.				
Video IP: 225.24.164.112	Audio Port	number to stream audio.				
Video Port : 5000 (1025~65535) Audio IP : 226.24.164.112						
Audio Port : 5002 (1025~65535)	Mata ID					
Meta IP : 227.24.164.112	Meta IP	Configures the multicast address and the port number to the HTML meta.				
Meta Port : 5004 (1025~65535)	Meta Port					
Path : stream1m						
TTL : 255 (1~255)	Path	Configures the URL address of the video stream.				
	TTL	Configures the time-to-live threshold of the multicast				
		datagram before it is discarded by the router.				
DDNS	Enable DDNS	Enables DDNS service				
Enable DDNS						
Host Name :	Host Name	Specifies the Host name registered with the DDNS server				
DDNS Server : DynDNS 🔻						
User Name :						
Password :	DDNS Sever	Selects one of the pubic DDNS severs from the dropdown menu. Options are <u>DynDNS</u> , <u>NO-IP</u> , and				
Password Confirmation :		Twi-DNS.				
Apply						
	User Name					
	Oser Name	Specifies the user name of the DDNS account.				
	Password	Specifies the password of the DDNS account.				
	Password Confirmation	Confirms the password of the DDNS account.				
	No SNMP Sever	Disables SNMP function				
	SNMP v2c	Enables SNMP version 2 support				



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SSL Mode : Disable Optional Certificate No certificate has been : installed. Action : Install New Certificate Key PEM file : Choose File No file chosen Upload Certificate PEM file : Choose File No file chosen Upload	Install New Certificate <ul> <li>CA Certificate</li> <li>Client</li> <li>Certificate</li> </ul>	<ol> <li>Locate <u>CA Certificate</u> and <u>Client Certificate</u> and click Upload.</li> <li>Click <u>Install New Certificate</u> to upload the Certificate.</li> </ol>
FTP  Enable User name : adminftp Password : •••• Confirm : •••• Max. Connection (1~10) : 10 Apply	Enable Password Confirm Max. Connection	Enables FTP access to the camera. Note: This function is only available when a SD card is installed. You can access files in the SD card via FTP. Specifies and confirms the password to access the FTP. Specifies the maximum number of FTP connections to the IP camera.
802.1x Protocol : NONE • Apply	Protocol	You can select one of the protocol options from the dropdown menu. The supported protocols are <u>EAP-</u> <u>MD5</u> , <u>EAP-TLS</u> , <u>EAP-TTLS</u> or <u>EAP-PEAP</u> . After the protocol has been selected, manually configure the username, password and other required information.

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#### **Privacy Mask**

Arecont VISION Image Video & Audio Focus Network Privacy Mask Event Video Analytics System Options Administration About Support	-											
	Arecont Vision <sup>®</sup>	Image	Video & Audio	Focus	Network	Privacy Mask	Event	Video Analytics	System Options	Administration	About	Support

Menu	Feature	Description
Privacy Mask	Enable Privacy Mask	Creates a privacy mask on the image so the selected areas will not be visible.
Enable Privacy Mask  * Left click and drag to set mask  * Right click and drag to erase mask Note: It might take a few seconds for a privacy mask to show on the video stream.		



#### Event

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Arecont Vision	Image	Video & Audio	Focus	Network	Privacy Mask	Event	Video Analytics	System Options	Administration	About	Support

Menu	Feature	Description
Motion Detection *	Enable	Turns on and off on-camera motion detection
Zone Size: 11	Extend	Enables the extended motion detection and motion detection zones increase from default 64 to 1024 for enhanced motion detection sensitivity.
2 8 15 Object Size Sensitivity: 2	Zone Size	Adjusts the size of motion detection zones.
Movement Duration Factor: 7	Detail	Sets the size of each zone displayed by the motion detection grid. Sub zones can be up to 32x32 (pixels). This setting configures the sensitivity of the motion detection to the size of objects in the image moving through the zone. Higher values will trigger motion only for larger objects moving through the zone, lower values will cause detection of smaller objects in the zone (increasing sensitivity to smaller size objects moving through the image).
	Level Threshold	Sets the sensitivity to brightness changes between dark and light objects within each grid zone. As an example "Detail" will set the size of the object detected within the zone, "level" sets the duration that movement must be maintained to trigger motion detection. Lower settings can increase false motion alarms caused by image noise, higher settings will require more movement to trigger a motion event.
	Motion Sensitivity	Sets the sensitivity to sudden overall brightness changes in the image.
Alarm Handler <ul> <li>Enable Alarm Detection</li> <li>Alarm Schedule</li> </ul> *This function is supported depends on models.	Enable Alarm Detection	Enables Alarm Detection (Alarm In) function.
	Alarm Schedule	Configures the alarm schedule by holding down the mouse button and clicking the time block to enable

		the schedule settings on the selected time. A light blue color on the time block indicates that the alarm schedule is enabled, while a light grey color indicates that the alarm schedule is disabled.					
		Alternatively, you can manually enter numbers to configure the hours and minutes from start to end for all weekdays.					
		<u>S</u> : Click "S" to set up a 24-hour schedule for a particular day.					
		<u><b>D</b></u> : Click "D" to clear the previous schedule for a particular day.					
Digital I/O 🗸	Trigger Alarm Detection	When a signal is detected from Alarm in, the Alarm out will be triggered.					
Trigger Motion Detection Trigger Network Failure	Trigger Motion Detection	When a motion detection event is detected, the Alarm out will be triggered.					
Trigger Video Analytics Type N.O. Off Time 0 (0~30s) Apply	Trigger Video Analytics	When a video analytics event is detected, the Alarn out will be triggered.					
	Туре	Selects the type: N.O (Normal Open) or N.C (Normal Close)					
*This function is supported depends on models.	Off Time	Specifies the alarm duration					
FTP Upload Handler ~  Remote Server Host Address : Port : 21 (21, 1025~65535) Username : Password :	Remote Server Host Address Port Username Password	Host Address: Specifies the host name or IP address of the FTP server. Port: Specifies the port number of the FTP server. Username: Specifies the login username of the FTP server. Password: Specifies the login password of the FTP server.					
FTP Upload Handler  Enable Trigger Event Trigger Alarm Detection Trigger Motion Detection Trigger Video Analytics Trigger Scheduled  Apply	FTP Upload Handler <ul> <li>Enable Trigger</li> <li>Event</li> </ul>	Enables and selects a desired trigger source. The options are <u>Trigger Alarm Detection*</u> , <u>Trigger</u> <u>Motion Detection</u> , <u>Trigger Video Analytics</u> , and <u>Trigger Scheduled</u> . *This function is supported depends on models.					
	SMTP Notification Handler	From: Specifies the email address of the sender					

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•	Overwrite when storage full Record Type	Status: Displays whether the SD card is installed ornot. (not mounted or ok)Overwrite when storage full: Enables overwritingthe SD card if the storage is full.Recoding Type: Specifies the desired action torecord a stream. The options are Snapshot andVideo.
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#### **Video Analytics**

Arecont Vision"	Image	Video & Audio	Focus	Network	Privacy Mask	Event	Video Analytics	System Options	Administration	About	Support

"This camera is not used for heavy traffic (vehicles) or roads/intersections. "

Menu	Feature	Description
Analytics Settings	Enable Analytics	Enables and selects a desired Analytic function. The options are Line Crossing, Loitering, Camera Tamper, Intrusion Detection, Person/Vehicle Counting*, Object Left/Removed*. * Note: Only the camera with Optional Advanced License supports this function. Line Crossing: Detects objects that cross a virtual line. Loitering: Detects objects that remain in a user-specified area beyond a specified time. Camera Tamper: Detects attempts to partially or completely block the lens or field of view, or drastic changes to the camera angle. Intrusion Detection: Detects objects that move into a user specified area. Person/Vehicle Counting*: Performs a continuous, multi directional count of people, vehicles or all objects. Object Left/Removed*: Continuously monitors a specified area to detect objects that have been left/removed.
Basic Settings Camera Position: Angled View ▼ Sensitivity: 80 *A higher value will detect more motion/movements. Display Bounding Boxes Trigger Video Motion Detection Event Block Standard Motion Detection Data <sup>1</sup> / <sub>2</sub> detects the deter(VSI) will only restrict the Analytic events as metror	Camera Position • Angled View • Horizontal View • Top Down View	Selecting the correct position is critical for analytics to be successful. Care should be taken to avoid the following: 1) Object sizes that are too small (<10% of the whole image). 2) Object sizes that are too large (>40% of the whole image). 3) Objects that can be hidden from view. <u>Angled View</u> : Typically used for wall or corner mounts looking down. Useful for general intrusion. <u>Top Down View</u> : Typically used for vertical ceiling mounts. Primarily used for line crossing or directional movement. <u>Horizontal View</u> : Typically used for horizontal wall mounts at a lower height. It is not recommended for

		most situations since objects can be hidden from view.					
	Sensitivity	<ul> <li>Specify the desired trade-off between true detections and false alarms to minimize the effects from the background motions.</li> <li>For night/low contrast scenes the sensitivity should be increased to 90-95.</li> <li>For bright/noisy/sharp videos it should be lowered to 60-75.</li> <li>To minimize the effects of noise, Sensitivity can be reduced so that only more prominer objects will be detected and trigger events.</li> </ul>					
	Display Bounding Boxes	If checked, the video on the Web UI will display a bounding box around a valid object. Note: The bounding box will not overlay on the video. It is displayed on the camera web UI only.					
	Trigger Video Analytic Event	If enabled, Video Analytic Events will be treated as motion data. If "Block Standard Motion Detection Data" is enabled, the client (VMS) will only receive the Analytic events as motion detection events.					
Line Crossing Settings *Left click and drag to set a line. Object Type: Person Vehicle All Objects Crossing Detection $A \rightarrow B$ $B \rightarrow A$ $B \rightarrow A$ $A \rightarrow B$ Apply	Object Type • Person • Vehicle • All Objects Crossing Detection • A> B • A < B • A <> B	<ol> <li>Left click and drags a line on the live video.</li> <li>Select a desired object type to trigger events. The options are <u>Person</u>, <u>Vehicle</u> and <u>All Objects</u>.</li> <li>* Note: Optional Advanced License is required for: Person/Vehicle Counting Object Left/Removed</li> <li>Select a desired crossing direction to trigger events. The options are <u>A —&gt; B</u>, <u>A &lt;-&gt; B</u>.</li> <li>Click "Apply". FF</li> </ol>					

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Loitering Settings *Left click and drag to set a specified area. *Right click and drag to erase a specified area. Minimum Loitering Time(Sec): 5	Minimum Loitering Time (Sec)	<ol> <li>Left click and drag to draw a virtual area.</li> <li>Right click and drag to erase a virtual area.</li> <li>Specify the amount of time an object must be in the area to trigger the event.</li> <li>Click "Apply"</li> </ol>
Camera Tamper Settings Triggered by Light Changes Sensitivity: 60 Camera Tamper Settings 50 Camera Tamper Set	Triggered by Light Changes Sensitivity	If enabled, lights turning on/off will be treated as a tamper event. Sets the sensitivity to detect the tamper event due to the sudden changes in the image.
Intrusion Detection Settings *Left click and drag to set a specified area *Right click and drag to erase a specified area. Object Type: O Person Vehicle All Objects Apply	Object Type Person Vehicle All Objects	<ol> <li>Left click and drag to draw a virtual area.</li> <li>Right click and drag to erase a virtual area.</li> <li>Select the object type that will trigger the analytic.</li> <li>*Optional Advanced License is required for: Person/Vehicle Counting Object Left/Removed</li> <li>Click "Apply"</li> </ol>
Person/Vehicle Counting Settings         *Left click and drag to set a line.         *Count incoming and outgoing objects that cross a specified line.         Object Type:         ● Person         ● Vehicle         ● All Objects         Event Count:         A -> B: 0         B -> A: 0         ■ Trigger event if count is greater than:         A -> B:       0         B -> A:       0         © Reset Event Count         ● Every Day         ● Every Month         1 ♥ day Monday ♥         ● ♥ hour ● ♥ min         Reset Event Count	Object Type • Person • Vehicle • All Objects Event Count • $A \longrightarrow B$ • $B \longrightarrow A$ Trigger event if count is greater than: • $A \longrightarrow B$ • $B \longrightarrow A$ Reset Event Count • Every Day • Every Week • Every Month	<ol> <li>Left click and drag to draw a virtual area.</li> <li>Select the object type that will trigger the analytic.</li> <li>Enable Trigger Event if count is greater than: to send a trigger when a count has reached a specific threshold.</li> <li>Enable Reset Event Count to reset the counters on a specific day, week or month.</li> <li>Click Reset Event Count to manually clear the counters.</li> <li>Click "Apply"</li> <li>Note: Optional Advanced License required for this feature.</li> </ol>

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<ul> <li>Object Left/Removed Settings</li> <li>*Left click and drag to set a specified area</li> <li>*Right click and drag to erase a specified area</li> <li>Enable Object Left</li> <li>Enable Object Removed</li> <li>Apply</li> <li>Object Calibration &lt;</li> <li>Stop Live Video</li> <li>Object Type:</li> <li>Enable Object Size Setting</li> <li>Person</li> <li>Minimum Maximum</li> </ul>	<ul> <li>Type Enable Object Left</li> <li>Type Enable Object Removed</li> <li>Stop Live Video</li> <li>Enable Object Size Setting         <ul> <li>Person</li> <li>Vehicle</li> </ul> </li> </ul>	<ol> <li>Left click and drag to draw a virtual area.</li> <li>Right click and drag to erase a virtual area.</li> <li>Selects Enable Object Left or/and Enable Object Removed.</li> <li>Click "Apply"</li> <li>Click Stop Live video to perform object calibration.</li> <li>Enable Object Size Setting to start Object Calibration.</li> <li>Select Minimum to specify the minimum object size of the target.</li> </ol>					
Vehicle Minimum Maximum All Objects Minimum Maximum *Left click and drag to set an object size.	All Objects	<ol> <li>2. Left click and drag to set the object size</li> <li>3. Select Maximum to specify the maximum object size of the target.</li> </ol>					
Apply         Width Min Min Max (%)         Height Max (%)           Person 5         5         85         85           Vehicle 5         5         85         85           All         5         5         85         85		<ul> <li>4. Left click and drag to set the object size</li> <li>5. Click "Apply"</li> <li>Note: It is suggested to set the minimum object size to half the width and height of the average object, and set the maximum object size to about 130% the width and height of the average object.</li> </ul>					
Event List Stop Refreshing Event List Display Event Types Line Crossing Loitering Camera Tamper Camera Tamper Intrusion Detection Person/Vehicle Counting Object Left/Removed Date Time Display Reset Event List	Stop Refreshing Event List • Display Event Types • Date Time Reset Event List	<ul> <li>Click Stop Refreshing Event list to pause new events from being displayed.</li> <li>1. Select <u>Display Event Types</u>. The options are <u>Line Crossing</u>, <u>Loitering</u>, <u>Camera Tamper</u>,</li> <li><u>Intrusion Detection</u>, <u>Person/Vehicle Counting*</u>,</li> <li><u>Object Left/Removed*</u>.</li> <li>2. Specify a start time and end time for events you want to search for.</li> <li>3. Click "Display"</li> <li>Click <u>Reset Event List</u> button to reset the current event list.</li> <li>Note: Optional Advanced License required for this feature.</li> </ul>					
License version: advanced Update License: Apply	Current License Version Update License	Current License Version         Standard or Advanced.         Enter a license key then click Apply.         Note: If you would like to upgrade to Advanced         License, please contact Technical Assistance					





Center (TAC). Call at +1.818.937.0700 and select option #1.
Note: Cameras with Advanced License cannot be downgraded to Standard License.





#### System Options

Arecont Vision <sup>®</sup>	Image	Video & Audio	Focus	Network	Privacy Mask	Event	Video Analytics	System Options	Administration	About	Support	
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Menu	Feature	Description
System Options	Firmware Upgrade	Click <b>Browse</b> to choose the firmware upgrade file, and then click <b>Upgrade</b> .
Firmware Upgrade Please select a file to update: File Name : Choose File No file chosen Upgrade	Download Log	Records all the status information of the camera in list format. Downloads the log file to the computer as a text file.
Download Log Download Reboot & Restore Settings		Note: The log file is protected by a password. Please contact with Arecont Vision technical support team.
Reboot the Camera Restore to Factory Default Settings Except Network Settings Restore to Factory Default Settings Camera Name AV5426PMIR-S-3F save	Reboot & Restore Settings Reboot the Camera Restore Factory Default Settings Except Network Settings Restore to Factory Default Settings Camera Name	Reboot the Camera:       Restore Factory Default Settings Except         Network Settings:       Restores all settings to factory default except the network settings.         Restore to Factory Default Settings       Restores all settings         Settings to factory default.       Settings         Type in the camera name.       Type in the camera name.
Date/Time Set Time from: MTP Server Computer System Time Zone: America • Los_Angele: • MTP Server: O.north-america.pool.ntp Mply NTP Server Configuration Update Time from the Computer * Select NTP Server option to syncronize time with the MTP Server and enter server configuration Update Time from the Computer * Select NTP Server option to syncronize time with the MTP Server and enter server configuration Select NTP Server option to syncronize time with the MTP Server and enter server configuration * Select Computer System option to syncronize time the computer system via camera web page.	Get Time from <ul> <li>NTP Server</li> <li>Computer</li> <li>System</li> </ul>	NTP Server:Synchronizes the date/timeinformation with defined NTP server. After settingup the desired Time zoneand NTP Server, clickApply NTP Server Configuration.Note: Please make sure set up appropriategateway before configuring the NTP server.Computer System:Synchronizes the date/timeinformation with current computer's date/time. Oncethis option selected, click Update Time from thecomputer.
	Time Zone	Specifies the country/ city of the time zone from the drop-down menu.
	NTP Server	Specifies the desired NTP server



#### Administration

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Arecont Vision" A COSTAR COMPANY	Image	Video & Audio	Focus	Network	Privacy Mask	Event	Video Analytics	System Options	Administration	About	Support

Menu	Feature	Description					
Administration	Access Control	Passwords can be up to 16 letters, digits and symbols, excluding following symbols for passwords without encoding # % & ' " < > / [] { } _ ( ) = . + ,					
Access Control (Passwords can be up to 16 letters, digits and symbols, excluding following symbols for passwords without encoding # % &' " <> / [] {} _ () =, +	Administrator • Username • Admin Password • Confirmation • Set/ Erase	<ul> <li><u>Username</u>: The username of Administrator is admin and cannot be changed.</li> <li><u>Admin</u>: full access to all camera settings and live video.</li> <li><u>Admin Password</u>: Specifies the password for the administrator.</li> <li><u>Confirmation</u>: Re-enters the password for the password validation.</li> <li><u>Set/ Erase</u>: Saves or removes the password.</li> <li>Note: If admin password was set but has been lost, it can be erased by AV IP Utility using the key file. Please contact Arecont Vision technical support to obtain the key file required to perform this function.</li> <li>Or, if the camera has a reset button, you can also reset to Factory default to reset the password.</li> </ul>					
	Viewer Management <ul> <li>User List</li> <li>User Name</li> <li>Viewer Password</li> <li>Confirmation</li> <li>Access Level</li> <li>Set / Erase</li> </ul>	<ul> <li><u>User List</u>: Displays current user accounts created on the camera. Click <u>New User/ Delete User</u> to create or remove a user account.</li> <li><u>User Name</u>: Specifies the user name. It must be at least five and up to sixteen characters.</li> <li><u>Viewer Password</u>: Specifies the password for the viewer.</li> <li><u>Confirmation</u>: Re-enters the password for the password validation.</li> <li><u>Access Level</u>: Defines the authorization level for the user: <u>Admin</u> or <u>Viewer</u>.</li> <li><u>Set/ Erase</u>: Save or removes the password.</li> </ul>					



#### About

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Arecont Vision <sup>®</sup>	Image	Video & Audio	Focus	Network	Privacy Mask	Event	Video Analytics	System Options	Administration	About	Support
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Menu	Feature	Description					
About	About	Displays the information of the camera: Model Name, Firmware, Serial Number, and MAC					
Model Name : AV5426PMIR-S		Address.					
Firmware : 71500.8							
Serial Number : 190302636							
MAC Address : 00-1a-07-18-e9-3f							

#### Support

Arecont Vision <sup>®</sup>	Image	Video & Audio	Focus	Network	Privacy Mask	Event	Video Analytics	System Options	Administration	About	Support

Menu	Feature	Description
Support	Support	Provides several useful hyperlinks for users who would like to get more information of the camera.
<ul> <li><u>Resources</u></li> <li><u>Online Support Request</u></li> <li><u>Firmware Downloads</u></li> <li><u>Software Downloads</u></li> <li><u>Technical Updates</u></li> <li><u>Product Selector</u></li> <li><u>Downloads</u></li> </ul>		



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