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come, Alisha S Pettit				Procureme	ent Budgeting Accounts Receivab	e Accounts	Payable			
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State of West Virginia Solicitation Response

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FOR INFORMATION CONTACT THE BUYER John W Estep 304-558-2566 john.w.estep@wv.gov

Vendor Signature

Signature X

FEIN#

DATE

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	36 On-Body Worn Camera Systems for CDL Examiners	36.00000	EA	2394.710000	86209.56
Comm	Code Manufacturer		Specificatio	on	Model #

Commodity Line Comments: Optional Items

Flex POV Module for AB4 249.00

Respond Plus 10.31 Per Month, Per Camera (All cameras are capable of live streaming; Respond Plus is required to activate this feature.)

Extended Description:

36 On-Body Worn Camera Systems for CDL Examiners

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Warranty and Support - Year 1	1.00000	YR	5976.000000	5976.00

Comm Code	Manufacturer	Specification	Model #
72154200			

Commodity Line Comments: Axon offers a technology refresh option which would replace all hardware with the newest model at the end of the 3 Year Warranty Period. TAP AB4 - 32.47 Per Camera, Per Month

TAP AB4 - 32.47 Per Camera, Per Month TAP Dock - 11.91 Per Unit, Per Month TAP Flex POV - 2.15 Per Unit, Per Month

Extended Description:

36 On-Body Worn Camera Systems for CDL Examiners - Warranty and Support

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Warranty and Support - Year 2 Optional	1.00000	YR	5976.000000	5976.00

Comm Code	Manufacturer	Specification	Model #
72154200			

Commodity Line Comments: Axon offers a technology refresh option which would replace all hardware with the newest model at the end of the 3 Year Warranty Period.

TAP AB4 - 32.47 Per Camera, Per Month TAP Dock - 11.91 Per Unit, Per Month TAP Flex POV - 2.15 Per Unit, Per Month

Extended Description:

36 On-Body Worn Camera Systems for CDL Examiners - Warranty and Support

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Warranty and Support - Year 3 Optional	1.00000	YR	5976.000000	5976.00

Comm Code	Manufacturer	Specification	Model #
72154200			

Commodity Line Comments: Axon offers a technology refresh option which would replace all hardware with the newest model at the end of the 3 Year Warranty Period. TAP AB4 - 32.47 Per Camera, Per Month TAP Dock - 11.91 Per Unit, Per Month TAP Flex POV - 2.15 Per Unit, Per Month

Extended Description:

36 On-Body Worn Camera Systems for CDL Examiners - Warranty and Support

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1 AXON BODY 4

1.1 AXON BODY 4 OVERVIEW

The Axon Body 4 camera is designed to capture clear, admissible video and audio evidence when an officer is in the field. The camera has four configurable resolutions from 480p to 1440p and leverages low-light and clear frame technology to capture high-quality video evidence in a variety of environments. Four-built in microphones, strategically placed inside the camera, leverage audio algorithms and onboard audio processing to capture high-quality audio recordings. When combined, these elements help officers capture truth in the moment and maintain transparency.

The Axon Body 4 camera is compatible with an easily integrated point-of-view camera called the Axon Flex POV module. Without having to register, assign, or charge the accessory before use, an officer can simply plug the Axon Flex POV module into the Axon Body 4 and begin capturing the same quality evidence from a different vantage point. With this accessory, agencies no longer have to decide between deploying a body-worn camera or a point-of-view camera; they can have both.



1.1.1 CAMERA FEATURES AND BENEFITS

- ▶ A DURABLE DESIGN that has been tested to meet/pass the Ingress Protection Rating, MIL-STD Defense, and Impact Certified standards, and can withstand impacts and operate in the harshest environments.
- A LONG-LASTING BATTERY that is capable of providing approximately 14 hours of battery life under normal usage.
- **A LARGE INTERNAL STORAGE CAPACITY** of 128 GB to house captured video files
- ▶ A MAGNETIC FAST CHARGE DISCONNECT CABLE that allows officers to rapidly charge their cameras from the patrol vehicle and falls off when they need to leave the vehicle at a moment's notice.
- AN INTEGRATED AND EASY-TO-USE MOUNTING SYSTEM that allows officers to quickly mount their cameras to various locations on the body and across different uniform types and equipment, such as helmets and belts.
- EMBEDDED REAL-TIME AWARENESS TECHNOLOGY via Axon Respond, which allows the camera to send notifications and alerts, GPS and Wi-Fi location information, and a secure livestream feed over an LTE connection to Axon Evidence or a mobile application. This includes future support for bi-directional communication in the field.
- INTEGRATED AXON SIGNAL TECHNOLOGY that activates cameras if an action is taken, such as a firearm being removed from a holster equipped with Axon Signal Sidearm.
- A CONFIGURABLE PRE-EVENT BUFFER that can capture up to two minutes of video before the camera is actively recording.

AN IN-FIELD EVIDENCE OFFLOAD OPTION that allows officers to send individual pieces of evidence directly from the camera to Axon Evidence.

1.1.2 AXON BODY 4 IN THE FIELD

Officers in the field have complete control over their Axon Body 4 camera through seven easily accessible buttons strategically placed on the device. These buttons allow officers to start and stop recordings, manage volume levels, activate and deactivate operation modes, access camera information, and power down the device. Additionally, the camera has two programmable buttons that an agency can set to determine device behavior, thus making the most important camera actions easier to remember and access. This includes programmable camera features like Stealth mode, Audio Mute, Photo Marker, and the newly built Watch Me feature that allows officers to request an extra set of eyes via Axon Respond's livew capabilities.

An officer can also easily and quickly view their camera's status via LED lights on the front and top of the camera, as well as from the Camera. For example, when the camera is recording, both the LED lights on the front of the camera and near the Camera Display will blink red. The camera also uses audio and haptic feedback in unison with visual feedback to help remind officers of the current state of the camera. This is useful in situations when officers are multi-tasking and need to quickly check the status of the camera without losing focus on the task at hand.

Lastly, when a new perspective is needed, an officer can plug in their Axon Flex POV module, which will begin capturing video from the accessory's perspective. With adjustable aspect ratios of 16:9 and 4:3 and a 160-degree field of view from both the Axon Body 4 and the Axon Flex POV module, your officers will have fast and adaptable control to capture more evidence than ever before.

1.1.3 AXON BODY 4 AT THE STATION

Once back at the station at the end of a shift, officers can begin charging the camera, offloading evidence to Axon Evidence, and updating the camera's settings and operating system by simply plugging the Axon Body 4 camera into an Axon docking station. Whether the docks are placed on a table or mounted to a wall, officers can insert their cameras into any bay and end their shift with confidence, knowing their evidence will be securely offloaded, and the camera will be fully charged and have the necessary storage available to capture critical events as they unfold during their next shift.

1.1.4 REAL-TIME SITUATIONAL AWARENESS - AXON RESPOND

Axon Body 4's integration with the Axon Ecosystem enables dispatch and command staff to gain real-time situational awareness of events in the field through Axon Respond.

Axon Respond enables remote personnel to quickly gain insight into a call-for-service or an officer's whereabouts. By simply signing into Axon Evidence or the Axon Respond mobile application, users can use the Axon Respond Map to view the real time location of officers wearing the Axon Body 4 or vehicles equipped with the Fleet in-car cameras, as well as receive live alerts and notifications.

This solution is provided anytime LTE connectivity is available. If an agency elects to upgrade to Axon Respond+, video can also be live streamed from the LTE enabled cameras. When livestreaming begins, the officer will be notified via audible and haptic (vibration) feedback and visually by an icon on the display. If stealth is enabled, the officer will not be notified.

A new "Watch Me" button on Axon Body 4 devices empowers officers to signal for an additional set of eyes to watch their back when responding to calls. When an officer presses this button, Axon Respond users receive a notification within moments so they can immediately support the officer. This enables supervisors and dispatchers to prioritize which officers can most benefit from additional support.

A new Voice Communication functionality is also available on Axon Body 4 devices. After starting a livestream on Axon Respond, Respond users then have the ability to start a conversation with the device wearer by pressing the "Start Call" button. The Respond viewer can then communicate with the officer by our "push-to-talk" feature. The device wearer can hands-free talk back to the Respond viewer. This feature supplies officers and supervisors with a communication method through Axon Respond.

These capabilities make it possible for those not on scene to gather better intel and help officers in the field as situations change. Whether checking in on a responding officer or sharing tactical advice during a critical event, Axon Respond gives your agency access to information in the moment.

Video and audio are livestreamed via WebRTC (Web Real-Time Communication) protocol, with media secured using SRTP (Secure Real-Time Transport Protocol), and encryption keys agreed upon using DTLS (Datagram Transport Layer Security). All are industry standards. Today, livestreaming uses AVC (h.264) for video encoding and G.711 µ-law for audio. Axon Body 4 bi-directional voice communications are encoded with Opus. Livestreams consume 800kbps-1Mbps.

1.1.5 REPLAY IN THE FIELD: AXON VIEW / AXON DASHBOARD

The Axon Body 4 provides the option to review videos in the field on their cell phone or tablet (via Axon View), as well as on a mobile data computer mounted in their vehicle (via Axon Dashboard).

Axon View is a mobile application that allows officers to wirelessly connect their mobile device to their Axon body-worn camera in the field. Once connected, they can play back recorded videos, tag videos with a category, or add GPS metadata to a file.

Axon Fleet Dashboard is an in-car camera application designed for a vehicle's mobile data computer (MDC) which allows users to start and stop recordings, play back recorded videos, respond to ALPR alerts, and offload evidence from the field. Axon Fleet Dashboard also connects with Axon body-worn cameras, allowing users to review, upload, or add metadata to body-worn camera footage.

1.2 AXON BODY 4 CAMERA OPERATION

1.2.1 BUTTON CONFIGURATION

Recording can be initiated with a single button on the Axon Body 4.

All buttons and switches on the Axon Body 4 are equally accessible to both righthanded and left-handed users. The placement, size, and operation of buttons were designed to fit the structure of the human hand and facilitate intuitive use and separation of the components.

The ergonomic design facilitates natural muscle memory and uses minimal operational components (buttons, plugs, etc.), so officers can easily operate the camera without confusion. As long as the device is in an accessible position, an officer can easily activate it with a single button.

The power button on the bottom of the camera is flush with the device and would need to be intentionally pressed for activation or deactivation to commence. This placement of the button, which is inset, helps prevent officers from accidentally engaging the button, but it is visible enough that it can still be engaged when an officer is wearing gloves.

By design and based on feedback from agencies, Axon body-worn cameras require deliberate activation through the use of the Event button. To prevent inadvertent activations, the Event button must be depressed twice. To prevent inadvertent deactivations, the Event button must be depressed for at least three seconds.

The Axon Body 4 introduces Programmable Buttons. Programmable Button 1 and Button 2 are agency configurable and can be set in the Axon Body 4 Settings page. Button 1 is activated with a double press. Button 2 can be either single press or long press depending on the configuration. A still image can be captured by simply pressing the Select button on the BWV device. A marker is placed at a specific frame of the recording, which can then be extracted as an image file after upload into Axon Evidence.

We understand there are some situations where officers need to turn off the LED lights, sounds (audio prompts), and haptic feedback (vibrations) on the Axon BWV device. To account for this the Axon Body 4 offers a stealth mode.



The user action buttons are described below.

ΑСΤΙΟΝ	BUTTON PRESSES
Power On	Press Power button until a short vibration is felt. Camera starts and enters Ready (Buffering) mode
Power Off	Press and hold Power button for 3 seconds. Optional "Power Off Confirmation" which requires a secondary press of the SELECT button to power off the device.
Start Recording	Double-press Event button
End Recording	Press and hold Event button for 3 seconds Optional "End Recording Confirmation" which requires a secondary press of the SELECT button to end a recording.
Add Marker	While recording, press Select button
Watch Me	Double-press Programmable Button 1
Voice Communication	Hands free when livestreaming
Increase speaker volume	Press Volume Up button
Decrease speaker volume	Press Volume Down button
Turn lights on or off	Press and hold Volume Up button for 3 seconds
Enter Stealth mode	Press and hold Volume Down button for 3 seconds
Exit Stealth mode	Press and hold Volume Up or Volume Down button for 3 seconds ¹

 $^{^{\}rm 1}$ The camera remembers the previous volume and light settings when exiting Stealth mode.

	While recording, press and hold Select button for 3 seconds. Double press of the Event button will also exit Mute mode.	
Enter or exit Mute mode	Mute mode can also be configured so that it is a push and hold button - meaning that audio will be muted only as long as the officer presses and holds the select button. This is designed to prevent an officer unintentionally leaving their camera muted.	
	Administrators can enable "Watermark Audio Mute," which will place a "MUTED" watermark in the video when recording audio is muted by the user.	
Enter Sleep mode	Press Power button and then press Select button	
Exit Sleep mode	Press Power button or double-press Event button	
Activate display backlight	Double-press Select button. Display backlight turns on for 5 seconds	
Enter Pairing mode	Press the Event and Program buttons simultaneously, then release	
Enter Menu	Double press Select button	

1.2.2 ALERTS AND NOTIFICATIONS

The Axon Body 4 camera provides visual (LEDs), a visual display area, audible (beeps), and haptic (vibration) feedback to clearly indicate the current mode of operation and alert the wearer of the camera's status.

The LED Auto Brightness feature automatically adjusts the brightness of the camera's front and top LED lights based on ambient light conditions. At night and in low-light situations, users can use the Select button to backlight the Camera Display.

1.2.2.1 VISUAL NOTHIFICATIONS - DISPLAY AREA

The camera display on top of the camera is divided into a Status Bar and Activity Area.



1.2.2.1.1 I C O N S

Status Icon	Description	
97% 🗖	Battery capacity	
•	Battery charging	
.	Low battery (Battery level is 10% or less)	
	Battery not charging due to high temperature. The camera will continue to operate normally, and the battery will start to charge once the camera cools down.	
S	Paired with Axon View mobile app	
۵	Moisture detected in the side POV port or bottom USB-C port. The camera will continue to operate normally, however ensure that it is dry before docking or connecting a POV module.	
S	Stealth mode on	
A	Lights off	

Mode or Action	Camera Display	Top LED
Buffering	READY	Blinking green
Buffering with POV (Right/Left orientation)	L-READY or R-READY	Blinking green
Recording		Blinking red
Recording with POV (Right/Left orientation)	R 🛛 L 🔍	Blinking red
Livestreaming	LIVE	Blinking purple
Watch Me	WATCH ME	Blinking red
Voice Comms	փի	Blinking red
Axon Signal Activation	((+))	Blinking red
Audio Mute during recording		Blinking blue
Sleep Mode	(Off
Pairing Mode	PAIRING	Blinking blue

1.2.2.1.2 DISPLAY AREA - IN THE FIELD

1.2.2.1.3 DISPLAY AREA - IN THE DOCK

Device Status	Display	Triad LED
Badge ID Displayed right after docking, when the camera is charging, and for 10 seconds after undocking.	■15 97% ● + 12345678	
Uploading Videos Displays number of videos on the camera, upload speed and time remaining for the upload.		Spinning yellow
Updating firmware Camera will resume normal operation after update.	∎ 15 ± 97% ■ + 12345678	Spinning white
Firmware update complete Displayed for 10 seconds after the update is complete, and for 10 seconds after undocking	Firmware v.1.15.0 Updated 8/18/2022	
Network error Troubleshooting instructions at help.axon.com	■15 97% ■ 5 NETWORK ERROR CHECK ETHERNET	
Battery charging Triad LED colors are different based on the charge level	∎15 97% ⊡ ≁ 12345678	Green: > 90% Yellow: 11%-89% Red: <10%

1.2.2.2 OPERATION LED

The Operation LED located on the top of the camera displays the device's current operating mode to the wearer.

OPERATION LED NOTIFICATIONS		
OPERATING MODE	OPERATION LED	
Power On	Solid Green	
Power Off	Solid Red	
Recording	Blinking red	
Ready (Buffering)	Blinking green	
Booting up/powering down	Solid red	
Mute enabled or Pairing mode	Blinking blue	
Axon Respond Livestreaming (If enabled for an agency)	Blinking purple	
Low battery or error	Blinking yellow	
In an Axon Dock with no other action	Battery capacity color	
Operating System update (while in an Axon Dock)	Solid white	

1.2.2.3 TRIAD LED

In addition to the display area and the Operation LED, the Triad LED on the front of the camera shows device operating mode, status and battery capacity.

TRIAD LED (IN THE AXON DOCK)		
DEVICE STATUS	TRIAD LED	
Ready Mode (Buffering)	Blinking green	
Recording Mode	Blinking red	

1.2.2.4 AUDIBLE NOTIFICATIONS AND HAPTIC FEEDBACK

The camera emits audible notifications (beeps) and haptic (vibration) feedback to notify the user of the system status. This prevents the user from having to visually check their device, improving user experience and officer safety. Alerts are listed in the following table:

AUDIBLE NOTIFICATIONS AND HAPTIC FEEDBACK			
OPERATING MODE	AUDIO NOTIFICATION	HAPTIC NOTIFICATION (VIBRATION)	
Powering on	Two short rising-pitch tones	One – short duration initially and then one long duration when in Ready mode	
Powering off	Three short lowering- pitch tones	One – long duration	
Start recording	Two short tones	Two – short duration	
Recording reminder	Two short tones every 2 minutes	Two – short duration every 2 minutes	
Stop recording, return to Ready	One long tone	One – long duration	
Volume up or down	One short tone at new volume level	One – short duration	
Axon Respond Livestreaming	Three short rising-pitch tones	One – long duration	
Enter or exit Mute Mode (microphone off)	One short tone	Two – long duration	
Exit Stealth Mode	None	Two – short duration	
Event marker captured	None	One – short duration	
Enter or exit Sleep Mode	One short tone	One – long duration	
Low battery notifications: 10% and 5% battery capacity	Four quick high-pitch tones	Four – short duration	
Camera enters Pairing Mode	Three short rising-pitch tones	None	

1.3 AXON BODY 4 DIMENSIONS AND PHYSICAL CHARACTERISTICS

1.3.1 OVERVIEW

1.3.1.1 AXON BODY 4

The Axon Body 4 was designed specifically for use by law enforcement in tactical policing situations.

Axon has created a simple and accessible design for officers in the field facing challenging situations. The design makes recording quick and easy, and enables automatic recording based on a number of factors.

The Body 4 is a self-contained, rugged, securely sealed unit with no fragile moving parts on the exterior. The device is designed for durability and undergoes rigorous testing so users can rely on longer-lasting cameras with fewer failures and a lower overall total cost of ownership.



The intentional design, by which the position and

orientation of the camera are adjustable at the mount, renders the device more rugged and durable than cameras with integral moving parts such as articulating lens heads. Numerous independent studies have noted articulating lens heads have vulnerable failure points.

Axon cameras have an all glass, fixed-focus lens, capable of maintaining clear images and Sony CMOS image sensor designed to provide high-quality video in both low-light and high-motion environments.

The most common damage to any body-worn camera comes from a drop; the Axon camera's ruggedized high-impact polymer protects against damage from this common occurrence, reducing repair and replacement costs as well as downtime.

Axon Body 4 can withstand extreme temperatures, which keeps crucial evidence safe and allows officers to rely on the camera's functionality in almost any environment.

The cameras use the Axon RapidLock mounting system, which allows officers to attach and detach the camera from a mount with a simple but deliberate twist. We offer several versatile mounts that can move or attach to different areas of uniform attire without modification to ensure the camera captures the desired field of view.

With four built in microphones and advanced audio processing, the Axon Body 4 can capture clear audio recordings in real world conditions.

The devices are supplemented with either a single or eight bay Axon Dock which is used for charging the devices, applying firmware updates, and offloading video evidence.

1.3.1.2 FLEX POINT OF VIEW MODULE (POV)

The Axon Body 4 camera offers an easily integrated pointof-view camera called the Axon Flex POV Accessory.

The Flex POV module does not require charging or offload. When a Flex POV module is connected, Axon Body 4 will buffer and record from the POV module perspective. When the POV module is disconnected, Axon Body 4 will automatically switch back to the Body Worn Camera perspective.



When a Flex POV module is connected to a user's camera for the first time, Axon Body 4 will prompt the user to set

the POV orientation. The orientation of the POV module can be determined using the letter on the top of the POV module when mounted. Once set, orientation can be updated using the camera menu.





1.3.2 AXON BODY 4 GENERAL SPECIFICATIONS

C A T E G O R Y	SPECIFICATION	
Model	AX1037	
Weight	220 grams	
Dimensions	1.05" (D1) X 1.21 " (D2) X 2.65" (W) X 3.95" (H) 2.7 cm (D1) X 3.1 cm (D2) X 6.7 cm (W) X 10.5 cm (H)	
Operating Temperature	-4°-122°F[-20°-50°C]	
Storage Temperature	-4°-95°F [-20°-35°C]	
Charging Temperature	41°-95°F[5°-35°C]	
Ingress Protection (IP)	Axon Body 4 has been internally certified at IP68 (1.5 meter for 30 meters) when tested in accordance with IEC 605529.	
Splash Rating	IPX4	
Vibration, salt fog, dust	MIL-STD-810G	
Humidity (non- condensing)	95% Operational	
Impact (Ambient)	6 Feet (1.8 meters)	
Specific Absorption Rates (SAR)	Extremity 3.456watts per kilogram (W/kg), Body Worn 1.354 W/kg Well below FCC limit of 1.6 W/kg per 1 gram of tissue.	



1.3.3 AXON BODY 4 CAMERA SPECIFICATIONS

Axon body-worn cameras use a wide-angle lens to capture video evidence that imitates a user's observable field of view. Users can quickly and easily adjust the field of view of the Axon Body 4 camera by repositioning the mount, or by moving the camera from one mount to another.

Axon cameras are purposefully designed to mimic the light perception of the human eye in real world situations, functioning accurately in daylight or darkness.

The cameras record in exceptional quality for evidentiary purposes; however, they do not use light enhancements as any form of night-vision or infrared technology can result in video footage that misrepresents what an officer saw.

To ensure evidence integrity and to avoid altering original recordings, our body-worn cameras do not implement any automatic distortion correction or image warping technology. Simply put, when a video is being reviewed or shared with your partners, it will be displayed exactly how it was when captured by the camera.

AXON BODY 4 FIELD OF VIEW			
ASPECT RATIO	DIAGONAL FOV	HORIZONTAL FOV	VERTICAL FOV
16:9	160°	140°	76°
4:3	160°	127°	93°
16:9	120°	102°	57°
4:3	120°	84°	63°

C A T E G O R Y	S P E C I F I C A T I O N
Frame Rate	30 frames per second (FPS)
Resolutions Supported	480p: (848 x 480)
	720p (1280 x 720)
	1080p: (1920 x 1080) 330
	1440 (2560 x 1440)
Lux Rating	< 0.1 lux
File Type	MP4
Video Format	MPEG4 Part 2, H.264 compression standard
Sound Format	Advanced Audio Coding (AAC)
Replay Software	Standard (e.g., Windows Media player, Real Player, QuickTime, VLC)

CATEGORY	S P E C I F I C A T I O N
Minimum audio resolution bit depth	16 bits
Sampling rate	48kHz
sound pressure level (SPL)	93 dB
Maximum video length	Only limited by storage space
Pre-event buffer	Up to 120 seconds, 30 second increments
Lens Type	Glass, f/2.0 fixed-focus lens - 40cm - Infinity
Sensor Type	CMOS 5MP

1.3.4 AXON BODY 4 BATTERY SPECIFICATIONS

The Axon Body 4 has an internal, rechargeable, lithium-ion polymer battery that is removable, replaceable, and recyclable. Axon products are designed to maximize both the operating (discharge) time and the life cycle (number of total discharge/charge cycles) of the battery.

To help limit battery consumption when using the Axon Body 4 in the field, or for small times of necessary privacy, users can enable Sleep Mode. Sleep Mode will enter the camera into an idle state by disabling both the buffering and recording functionalities. All activations of sleep mode are logged in the audit trail.

The battery specifications are shown in the following table:

CATEGORY	S P E C I F I C A T I O N
Battery Type	Lithium-ion polymer, 4300 mAh
Battery Life - Standard Configuration (720p, LTE on, GPS on, WPS on, Wi-Fi on)	13 hours (4 hours recording, 9 hours buffering)
Battery Life – Sleep Mode	50 hours
(not buffering; ready to start recording)	
Full Charging Time – Axon Dock	3 Hours
80% Charging Time – Axon Dock	1.5 Hours
Magnetic Disconnect Charger	20% charge in 30 minutes
Battery Life (ambient temperature)	300-500 cycles
Sleep mode to live	< 4 Seconds
Discharging in Dock	Yes
Annual Battery Degradation	<7%

1.3.4.1 CHARGING OPTIONS

While the Axon Dock is the primary means of charging, the Axon cameras can be charged by any electrical charger with a USB connector. The Axon Body 4 uses a USB 3.0, Type-C receptacle. This flexibility allows an officer to charge a camera from any location with a USB-compatible power source.

The Axon Body 4 also includes a magnetic disconnect charger for additional ease of charging.



1.3.5 AXON BODY 4 STORAGE SPECIFICATIONS

The Axon Body 4 has 128 GB of non-removable storage on a solid state eMMC to house captured video files and the camera's operating system. This is sufficient to hold 11 to 103 hours of recorded video (depending on resolution).

The camera's video resolution, encoding bit rate, frame rate, and video encoding format impact the size of files captured at each setting. The camera has four video quality settings with a minimum video resolution of 480p and a maximum video resolution of 1440p.

RESOLUTION	RECORDING CAPACITY ON INTERNAL MEMORY	FILE SIZE FOR ONE (1) HOUR OF RECORDING
480p	~103 Hours	0.97 GB
720p	~54 Hours	1.87 GB
1080p	~22 Hours	4.5 GB
1440	11 Hours	9.08 GB

Recording capacity and associated settings are defined below.

Axon purposefully designed our camera to allow for maximum storage capacity while balancing the time needed to offload footage.

When the camera reaches its recording capacity, it will not initiate any new recordings. At this point, if a user attempts to initiate a new recording, the camera will emit an audio feedback alert to notify the user that it cannot start Event (recording) mode.

Axon cameras will never overwrite previously recorded footage. It is not possible to delete or modify any video content on the device; videos are only deleted from the camera once they completely and verifiably upload to the application. This safeguard ensures no video content is accidentally lost or altered.



The Axon Body 4 cameras are compatible with two types of docks—an 8-bay Dock and a 1-bay Dock. Each dock is designed to charge the camera or cameras, and provide a connection to our DEMS, Axon Evidence, to securely upload evidence and receive the newest operating system updates or configuration changes.



Each dock functions as an Ethernet

adapter, an unmanaged network switch, and charger. All Axon Body 4 cameras are compatible with any Axon Body 4 Dock. All that is required to install an Axon Body 4 Dock, is the supplied Ethernet cable, an active internet port that connects to your network, and the included power cord. Upload rates average 30 MBPS withing a dock.

Each time the Axon Body 4 camera is docked, the time is automatically checked and reset. The dates and timestamps sync with the atomic clocks at the National Institute of Standards and Technology (NIST) and cannot be altered, which protects the chain of custody. The timestamp can be displayed in local or UTC.

C A T E G O R Y	SPECIFICATION
INPUT POWER	Voltage: 12–16 V DC Current: up to 8 A DC Power: 120 W maximum Connector: Barrel power connector, inner diameter 0.08" (2.1 mm), outer diameter 0.22" (5.5 mm), length 0.39" (10 mm), inside positive
OUTPUT SPECIFICATIONS PER PORT:	Voltage: 4.5–5.5 V DC Current: 3 A(maximum) Power: 15 W (maximum)
O P E R A T I N G T E M P E R A T U R E :	32 °F to 122 °F (0 °C to 50 °C)
HUMIDITY:	85 percent non-condensing
PORTS	One CAT5E Ethernet port, eight USB C dock ports

Specifications for the docking stations include:

Each Axon Body 4 BWV requires its own IP address when docked. The Axon Body 4 Docks have no IP address, but each bay has its own Media Access Control (MAC) address; the list of MAC addresses for each bay is shown at the end of each dock. Axon Body 4 BWVs require direct access to Axon Evidence through an Axon Body 4 Dock.

Axon also provides an option for Wall Mount Brackets, which were designed to minimize the device-storage footprint, as well as provide easy access.

1.3.6.1 SINGLE BAY DIMENSIONS









1.3.6.2 8 BAY DIMENSIONS



1.3.7 AXON BODY 4 MOUNTS

The Axon Body 4 camera is a self-contained audio-visual unit with no external wires. The camera utilizes a proprietary mounting system, allowing it to fully attach or detach from a mount in less than one second.

Whether your officers decide to mount their devices on a shirt, patrol vest, jacket, or belt, our easy-to-use mounting system—which includes an attachment piece built into the back of the device and an attachment



receiver built into each mount—allows them to simply attach and lock the camera in a desired place and position. Officers can easily remove and securely remount the camera as needed and no alteration to uniforms is necessary for most mounts.

Having multiple mounting options that attach to a variety of uniforms and clothing types can be both beneficial and convenient. Axon provides both low-retention mounts that are easy to maneuver and breakaway, as well as high-retention models that become an integral part of the uniform. With either option, officers can leverage our secure mounting system with RapidLock technology to help capture truth.

The camera's magnetic mounts are strong enough to hold the devices in place while running or fighting. To mitigate the jostling and bouncing that might happen during a foot pursuit or a physical altercation, Axon camera mounts are designed to fit on the centerline or above the beltline of the user to benefit from the human body's own mechanics for absorption of impact and energy.

LOW RETENTION	
THE FLEXIBLE MAGNET MOUNT	Easy-to-install mount with versatile mounting locations.
THE REINFORCED FLEXIBLE MAGNET MOUNT	Reinforced version of the Flexible Magnet mount that is easy to install, with versatile mounting locations and breakaway options.
THE BELT CLIP MOUNT	Allows the user to comfortably wear the body-worn camera anywhere on the belt.
THE OUTERWEAR MAGNET MOUNT	Offers versatile mounting locations and breakaway options ² .
OAKLEY FLAK 2.0	Designed for the Axon Body 4 POV Accessory; an easy-to-install mount compatible with Oakley Flak 2.0 frames which can be fitted with sunglasses or clear lenses.

 $^{^2}$ (This outerwear magnet mount is not recommended for Axon Body4 cameras using LTE capability as the metal may impact performance in low coverage areas.)

THE WING CLIP MOUNT	()	Easy to install and offers versatile mounting locations.
THE VELCRO MOUNT		Versatile mounting locations when there is existing Velcro on the uniform.
THE Z-BRACKET MOUNT		Allows the body-worn camera to be placed at the center of mass when wearing a buttoned shirt.
THE POCKET MOUNT (SMALL 4" OR LARGE 6")		Designed for easy to install in a uniform pocket, this comes in both 4" (10.16 cm) and 6" (15.24 cm) versions.
THE TILT MOUNT (MEDIUM/HIGH RETENTION FORCE)		Has a tilt angle that can be easily adjusted when the camera is attached. This mount must be paired with a primary Rapidlock mount, such as the Wing Clip or MOLLE mount.
COLLAR MOUNT		Designed for the Axon Body 4 POV Accessory; offers a comfortable fit that works well with Class B uniform or stiff collars.
BALLISTIC VEST MOUNT		Designed for the Axon Body 4 POV Accessory to support outerwear or ballistic vest mounting.

BALLCAP MOUNT		Designed for the Axon Body 4 POV Accessory; works with a variety of ball cap styles.
HIGH RETENTION		
THE HIGH RETENTION WING CLIP MOUNT	Ç,	Combines the versatility of the original Wing Clip with new design elements that increase the overall retention force.
HIGH-RETENTION BELT CLIP MOUNT		Allows the user to comfortably wear the body-worn camera anywhere on the belt. The adjustable design allows for secure mounting to a large variety of belt widths.
THE ANCHOR MOUNT		A semi-permanent, high-retention- force mount that is designed to support outerwear or ballistic vests that offer versatile mounting locations. This mount requires uniform alteration.
THE MINI MOLLE MOUNT		A smaller version of the Axon Single MOLLE mount. Axon has worked closely with Blauer Manufacturing, a leading supplier of law enforcement uniforms, to ensure the Mini MOLLE has an exact fit with their sew-on nylon MOLLE loop.
THE SINGLE MOLLE MOUNT		Integrates seamlessly with the MOLLE strap and offers a high- retention-force camera mount solution.

THE DOUBLE MOLLE MOUNT	Integrates seamlessly with the MOLLE strap and offers a high- retention-force camera mount solution.
THE ACTION CAMERA MOUNT	A GoPro-style mount adapter that allows a body-worn camera to be used in a variety of scenarios, such as a helmet, selfie stick, or tripod. This mount is compatible with most GoPro-style third-party action camera mounts, which are sold separately.
THE SLIM MOUNT	A low-profile and lightweight mount with high retention and a minimal footprint. This mount is ideal for use cases where Wing Clips or MOLLE Mounts are not feasible due to limited space requirements, but high retention force is necessary.
THE PATCH MOUNT	A reliable and high-retention mounting solution that offers compatibility with an existing vest and chest patch. It is compatible with a 4" tall Velcro patch area.
THE JACKET MOUNT	A non-magnetic mount designed for outerwear and thick fabric uniforms which offers high retention force and versatile placement.

THE FOLDING MOUNT		A high retention, low profile, non- magnetic Rapidlock mount that is simple to install and has versatile placement options. The folding rear component snaps into place in seconds and includes a convenient "push to unlock" button for quick release.
EPAULETTE MOUNT		Designed for the Axon Body 4 POV Accessory; clips into epaulettes and offers versatile shoulder mounting locations
UNIVERSAL HELMET MOUNT	COOT	Designed for the Axon Body 4 POV Accessory; offers a high-retention- force mounts options that fits most helmets. Semi-permanent location.
UNIVERSAL HELMET MOUNT, EXTENDED		Designed for the Axon Body 4 POV Accessory; offers a high-retention- force mounts options that fits most helmets. The Extended version is ideal for mounting in a location which may have an impeded field of view, e.g., a raised visor. Semi- permanent location.
TACTICAL SWAT KIT, ARC RAIL		Designed for the Axon Body 4 POV Accessory; supports SWAT helmets and comes with Arc Rail and Velcro POV mounting options.
TACTICAL SWAT KIT, PICATINNY RAIL		Designed for the Axon Body 4 POV Accessory; supports SWAT helmets and comes with PICATINNY Rail or Velcro DVR mounting options.

1.4 AXON BODY 4 RECORDING

1.4.1 RECORDING OVERVIEW

Axon designed the Axon Body 4 camera to capture high-quality video evidence that can be shared with and used with partner agencies. With that in mind, Axon uses standard file formats and strives to minimize the size of videos to make them easier to share for discovery purposes. Video and audio are recorded and exported in a single, MP4 encoded file format, ensuring perfect synchronization. This format is non-proprietary and allows for playback from any general video player.

1.4.1.1 VIDEO RECORDING

Axon cameras record at a rate of 30 frames per second (FPS), which offers the best balance of video quality, battery life, and file size. 30 FPS is the ideal setting, as it more accurately represents the perception of the human eye. Other FPS settings may appear choppy and unnatural to the viewer, and rates lower than 30 FPS may not provide the video quality necessary for evidentiary footage and may not properly capture motion occurring in a scene. Recording at a higher frame rate—such as 60 FPS—can negatively impact battery life and rapidly drain camera power without significantly improving video quality.

The Axon Body 4 utilizes advanced low-light technology and has a lux rating of < 0.1 lux to mimic the human eye in low light environments. This is important because a lux rating indicates low-light perception capability, which is the level of light required to see an object. Emulating this level of low-light perception when a video is captured allows agencies to leverage evidence that closely represents what an officer.

1.4.1.2 AUDIO RECORDING

The camera is the recording device for both video and audio with four (4) built-in microphones on different planes of the camera.

Axon Body 4 has four (4) digital built in microphones. The optional Flex POV add-on has two (2) built in digital microphones.

Audio fidelity depends on many factors, including resolution, sampling rate, and format. The higher sampling rate (48kHz) in the Axon Body 4 allows the camera to detect sounds in wider frequency ranges. An audio algorithm, developed by Nokia, dramatically improves the audio captured by the Axon Body 4 camera. The sophisticated, onboard Nokia Ozo-based audio processing assists with wind noise reduction, calculates automatic gain control, and produces a high-quality stereo audio recording.

If a sensitive situation arises during an event, the audio can be disabled when recording a video. If an Axon camera's microphone malfunctions, the camera will continue to record video. Similarly, the Video Mask is an Axon Body 4 feature designed to deactivate the capture of video footage while the camera is recording audio. This feature benefits agencies in dual-party-consent states in the United States where patrol officers are to notify and receive permission from a citizen to record video when responding to a call for service at a citizen's residence.

1.4.2 OPERATING MODES

The Axon Body 4 camera has two operating modes: Ready mode and Recording mode.

1.4.2.1 READY MODE

Ready mode starts after the Axon Body 4 camera is turned on. The system does not record when the camera is turned off.

The Ready mode provides pre-event buffering to capture activities that occur prior to the user activating the Recording mode.

Depending on agency settings, the pre-event buffer can capture up to two minutes (120 seconds) of video immediately preceding event recording and is configurable in 30-second increments.

Audio recording can be disabled during buffered video recording to accommodate agency evidence collection policies. Audio recording is disabled for pre-event buffering by default.

1.4.2.2 RECORDING (EVENT) MODE

1.4.2.2.1 MANUAL RECORDING ACTIVATION

When Recording (Event) mode is activated, the buffered video captured directly before the event is saved and attached to the event in permanent memory. This feature is intended to capture the video of an incident just before a recording begins.

Starting and stopping recording is done manually via the Event button on the front of the Axon Body 4 camera.

Once initiated, the camera will emit two short tones and two short vibrations to indicate the camera is in Recording mode. The Operation LED on the camera will also blink red and the word STARTING will appear on the Camera Display until replaced by the recording icon. At the start of an event and every 2 minutes during an event, the camera emits 2 short tones and 2 short vibrations.

Users can capture still images while recording with a single press of the Axon Body 4's Select button on the side of the device. This action places a marker in the video to denote that specific time and logs the marker in the device audit trail.

Recording is easily stopped by pressing and holding the Event button for 3 seconds.

1.4.2.2.2 RECORDING INITIATION VIA AXON SIGNAL

The Axon Body 4 has proven integration with TASER 7 and TASER 10 CEWs via Axon's Signal technology. This technology enables the triggering of recording by the Axon Body 4 based on rules set with other Axon products, such as a Signal Sidearm, Fleet camera, or Axon management platform. The Axon Body 4 is fully integrated with other TASER CEWs via the SPPM battery module.

If a recording is incorrectly initiated via an Axon Signal event, it can be marked as a false detection, which will assign a set retention time for the accidental recording.

1.4.3 VIDEO QUALITY

Typically, there is a trade-off between better low-light performance and limiting the blurriness or jumpiness of a video, but with our clear frame technology, the Axon Body 4 balances both.

With an algorithm designed to minimize blurring in fast-moving, low-light environments, the Axon Body 4 is capable of capturing high-quality videos in a variety of circumstances, providing the most accurate representation of what an officer saw.
1.4.4 MARKERS AND METADATA

Axon supports auto-tagging integration with the Tyler CAD system, including the required user fields. The number of user fields is unlimited. Both Axon Body 4 body cameras and Axon Fleet 3 in-car cameras are compatible with Axon Signal technology. This technology, included with our proposed solution, sends a signal that compatible devices recognize when certain status changes are detected. Axon Signal can be configured to detect and send a signal based on camera recording, or other configurable factors relating to the 12V status, motion or speed.

Axon Body 4 cameras capture metadata automatically with each video. The metadata is part of the file and transfers along with the video when offloaded to Axon Evidence. Axon Evidence then logs metadata in the video's evidentiary audit trail. Users can also mark video files to indicate an important event that can be found easily when replaying the video later.

When integrated with a CAD/RMS, after a file is uploaded, Axon Evidence will use data from the CAD/RMS to automatically apply metadata tags. There is no limit to the number of these tags, and normally editable fields can be edited after applied via the auto-tagging process.

Officer information is not directly embedded into the video files encoded on the Axon camera; rather, associations are made between an officer and the camera assigned to them in Axon Evidence. The camera ID is embedded in the metadata and cannot be changed. Only administrators can change the association of a camera ID with an officer.

ΙΤΕΜ	DESCRIPTION	
Device Type	Which camera is recording, e.g., Axon Body 4.	
Device Name	A unique name can be added for each device.	
Serial Number	Each camera has a unique number.	
Title	A title is automatically captured; by default, it uses the camera type, date, and time (e.g., Axon Body 4 Video 2018-07-23 1654).	
Date and Time	Axon cameras capture the date and time (yyyy-mm-dd hrs:mins:secs) of the start and stop of a recording as metadata and embed it within the MP4 file.	
Location	If location services are enabled, the body-worn camera will record time-series location data and embed it into the recording. This enables the generation of a map of where the recording took place, so it can be displayed during playback on Axon Evidence.	
Activation/ Deactivation Method	The camera tracks the methods by which a recording initiates and terminates. This could be from pressing the Event button or from an Axon Signal event, such as a TASER arcing, arming or deploying, or an activation from a Fleet in vehicle camera.	

The embedded metadata includes:

ITEMDESCRIPTIONAxon View
Custom ItemsAn officer can enhance the metadata using the Axon View mobile
application or the Axon View XL MDT. For example, the officer could
add a specific Even ID, categorize the video, or enter a custom title.

1.4.4.1 WATERMARK

A watermark (local or UTC date and time) can be enabled on videos recorded by the Axon Body 4. If enabled, the watermark is embedded at the time the video is created. The watermark cannot be altered and is part of the SHA-2 fingerprint of the file.



1.4.5 LOCATION

The Axon Body 4 camera has an embedded Global Positioning System (GPS) chip that sources location data from the device, similar to a cell phone, and uses two technologies to determine camera location: Global Navigation Satellite System (GNSS) and Wi-Fi Positioning System (WPS). Location is tracked throughout the duration of a video and recorded in the Latitude/Longitude format +/- DDD.ddddddddddddd.

This information is logged in the engineering logs of the camera and is exposed as a street address alongside the video in Axon Evidence and in Latitude/Longitude +/- format in the corresponding evidence report.

1.4.5.1 GLOBAL NAVIGATION SATELLITE SYSTEM

GNSS refers to a constellation of satellites that continuously transmit signals to enable devices to triangulate location based on signal strength and time. The United States' GPS is the most popular, and as a result, GNSS is often just referred to as "GPS". Axon Body 4 supports GPS, GLONASS, Galileo, and QZS.

When an Axon Body 4 camera is recording, the device's GNSS receiver will communicate with orbiting satellites to determine approximate location. The Axon Body 4 camera determines position in the same manner as your smartphone or in-car navigation.

1.4.5.2 WI-FI POSITIONING SYSTEM

The second location technology Axon Body 4 utilizes is Wi-Fi positioning. Wi-Fi positioning uses Wi-Fi access points to determine a location based on Wi-Fi signal strength.

Wi-Fi positioning offers several benefits, including:

- REDUCED TIME-TO-FIRST FIX Under most circumstances, Wi-Fi positioning should provide a position fix in less than three seconds. However, this may be longer in very rural locations or if the Axon Body 4 is traveling at a high speed. Wi-Fi positioning assists the device's GNSS by giving the device an initial starting location for faster satellite acquisition.
- INDOOR LOCATION Wi-Fi positioning enables the camera to get a position fix in most indoor locations because the technology does not require satellite signals.

1.4.5.3 CELL TOWER POSITIONING SYSTEM

Similar to Wi-Fi positioning, the Axon Body 4 also utilizes cell tower positioning to triangulate the camera's general position based on nearby cell towers.

1.4.5.4 RAPIDSOS INTEGRATION

Axon has a proven integration with RapidSOS through our Axon Respond API. This API is fully developed, and requires no additional work for customers, Axon or RapidSOS. For customers with Axon Respond, there is no additional cost from either Axon or RapidSOS for this capability.

All that is needed for the integration to start working, is activation of the capability in the local RapidSOS system by the administrator.

Once enabled, the RapidSOS system will begin polling Axon Respond continuously, providing real time access to officer locations. The location data of both BWC and Fleet cameras will flow into RapidSOS for visualization on their display.

1.5 SECURE DATA STORAGE AND TRANSFER

1.5.1 BWC SECURITY OVERVIEW

1.5.2 LEVELS OF PHYSICAL AND VIRTUAL SECURITY

The Axon Body 4 camera has four levels of physical and virtual security to help maintain a proper chain of custody and protect the device's sensitive data if the camera were to be lost or stolen.

- LEVEL 1: SECURED COMPARTMENT The outside components that make up the Axon Body 4 camera are assembled with Torx screws, thus preventing access to device storage without proper tools.
- LEVEL 2: EMMC STORAGE (EMBEDDED MULTIMEDIA CARD) The Axon Body 4 uses an eMMC to store data, which is populated directly on the circuit board rather than using an SD card, thus requiring the destruction or modification of the circuit board to access data. Additionally, videos cannot be deleted from the camera, and cameras will not natively mount into a Microsoft Windows operating system like a mass storage device such as a flash drive or external hard drive would.
- LEVEL 3: NO PARTITION TABLE The storage media does not have a partition table and will show as an unreadable drive/card under any operating system.
- LEVEL 4: AES-256-XTS FULL-DISK ENCRYPTION The Axon Body 4 camera protects device data via AES-256-XTS encryption using per-device, unique keys stored in the Qualcomm Secure Execution Environment on the Qualcomm SOC (Systemon-Chip).

1.5.3 ENCRYPTION

The Axon Body 4 camera has encryption both at rest and in transit.

Axon employs several advanced functions around encryption key storage, including

- TRUSTED KEY STORAGE ARM TrustZone hardware-based trusted key storage mechanism in the SoC to protect Full Disk Encryption (FDE) keys
- UNIQUE KEYS All FDE keys are unique to each device and are randomly generated. This is important because even if an attacker could recover part of an individual device's key, it would not provide any information that could then be used to decrypt another device's disk.

In addition, similar to modern smart devices, Axon Body 4 employs secure boot security measures where all segments of the boot process are authenticated as Axon-verified software, thus further securing data transmitted from the Axon Body 4 camera to Axon Evidence.

1.5.3.1 AT-REST ENCRYPTION

While on the device and at rest, all data collected and stored on the camera is protected from manipulation via AES-256-XTS encryption.



At-rest encryption on the camera keeps the device safeguarded if it is lost or stolen, thus preventing access to the camera's sensitive information if it were to fall into the wrong hands. Because data on the device is encoded, it cannot be accessed or read by an unintended party without an encryption key, even if they gain physical access to the device.

1.5.3.2 IN-TRANSIT ENCRYPTION

While data is in transit and the camera is uploading information to our DEMS—Axon Evidence—all communication between Axon Body 4 cameras and Axon Evidence is conducted over 256-bit AES encryption. More specifically, the camera transmits data to Axon Evidence using 256-bit TLS 1.2 encryption with an RSA 2048-bit key and Perfect Forward Secrecy. Once transmitted, the Axon Body 4 evidence is securely stored in Axon Evidence with an NSA Suite B 256-bit AES encryption at rest.

When offloading sensitive information, in-transit encryption protects the data during transfer and safeguards it from interception or manipulation. Additionally, the information is encoded and protected during communication, so while the data is being sent from a device to a network over the internet, information remains confidential and protected from would-be hackers.

1.5.3.2.1 DETAILED COMMUNICATION PROTOCOL

Communication between the Axon Body 4 camera and Axon Evidence is conducted over 256-bit AES encryption to safeguard data during transfer.

During offload from the camera to Axon Evidence:

- The precomputed SHA-2 cryptographic hash tree is located for each video that needs to be uploaded and each SHA-2 hash tree is computed immediately after the corresponding MP4 video finishes recording.
- The SHA-2 cryptographic hash tree and video metadata are transmitted to Axon Evidence.
- Upon completion of the upload process, the SHA-2 cryptographic hash tree values are evaluated to detect data corruption of any kind. A contiguous SHA-2 hash is computed after this verification step. Once the hash values and data integrity are verified, the corresponding video files are deleted from the camera.

The MP4 video files are saved securely in Axon Evidence in their original state, as verified by the SHA-2 hash tree function.

Please note, if a camera is removed from the Axon Dock before its video files are fully uploaded, any files not completely uploaded to Axon Evidence will remain on the camera, so that upload can resume the next time the camera is docked.

1.5.4 EMBEDDED MULTIMEDIA CARD

As an additional layer of security, the Axon Body 4's evidentiary data is securely stored on a solid-state, non-removable, embedded Multimedia Card (eMMC) inside the device. This is important because storage media is populated directly on the circuit board, and to be able to access the eMMC, one would need to destroy the



1.5.4.1 UPLOAD MECHANISMS

Axon supports the secure uploading of digital files to Axon Evidence, both at the station and in the field, through three options: the Axon Dock, WiFi, and LTE.

1.5.4.1.1 EVIDENCE UPLOAD VIA AXON DOCK

When a camera is plugged into the Axon Dock, an encrypted 256-bit AES SSL session is established with the local storage. Video files are then sorted, analyzed, and uploaded automatically to Axon Evidence.

Dynamic Host Configuration Protocol (DHCP) is used to provision the IP address and network settings. Each dock bay functions as an Ethernet card with its own MAC address.

Axon Body 4 cameras require direct access to Axon Evidence through an Axon Body 4 Dock and do not support using a proxy server.

The Firmware Download Timeframe setting allows agencies to adjust the timeframe (up to eight hours) in which cameras will download and apply an operating system update via the Axon Dock. This workflow will help reduce network bandwidth strain and limit congestion by randomly distributing operating system updates within the designated timeframe to all docked cameras.

Additionally, the Firmware Download Timeframe can be set from two to eight hours in one-hour increments.

Please note that if removed from a dock while a firmware download is in progress, a camera will resume the download process when it is returned to a dock. The download will resume at the point it left off prior to undocking.

1.5.4.1.2 EVIDENCE UPLOAD VIA WI-FI

Axon Body 4 cameras feature a Wi-Fi transmitter enabled with 802.11a/b/g/n/ac at 5 GHz and 2.4 GHz. Axon products are designed to use the most secure forms of wireless technology, while also considering power usage, battery life, and ease-of-use.

The Automatic Wi-Fi Upload feature enables cameras to automatically upload evidence over Wi-Fi by using a pre-configured list of networks in Axon Evidence. The upload process happens automatically in the background and requires no action by the body-worn camera user.

When this option is enabled, at the end of each Axon Body 4 recording, the camera will search for nearby Wi-Fi networks from the preconfigured list. If one is found, the camera will connect and upload evidence using that network.

Once a camera successfully connects to Wi-Fi and begins uploading evidence, the officer will see the Wi-Fi and upload symbols on the camera display, as shown in the image.

If Axon Fleet is currently installed in an agency's patrol vehicle, the Axon Body 4 can connect via Wi-Fi to the in-car router, or via Bluetooth to the Axon Hub. The vehicle's connection can then be used to upload evidence, either via Wi-Fi or LTE.

1.5.4.1.3 EVIDENCE UPLOAD VIA LTE

Priority Evidence Upload is a feature that allows critical pieces of evidence to be uploaded to Axon Evidence via LTE from the field. Uploading evidence directly from the field helps to ensure that the most critical pieces of evidence are available quickly for your command staff to review, leading to better situational awareness when it is needed most.

The Axon Body 4 has a built-in LTE modem and each camera is equipped with both an MFF2 chip and a 4FF nano SIM card. The active LTE carrier will determine which SIM is enabled for the individual camera. Axon Body 4 is PTCRB certified and supports both AT&T and Verizon.

An officer can initiate an LTE direct upload from the Axon Body 4 to Axon Evidence utilizing the camera's built-in LTE modem.

1.6 AXON BODY 4 ADMINISTRATOR CAMERA SETTINGS

The Axon Body 4 Camera Settings section in Axon Evidence enables agency administrators to control settings for Axon body-worn cameras.

Settings and other firmware updates are typically updated while the Axon Body 4 is in an Axon Dock. The Axon Body 4 also supports over-the-air (OTA) firmware changes via the Wi-Fi Firmware Update feature (OS v1.23 or later). By updating firmware in the field, users can benefit from features or fixes that come with new firmware without having to return to the station to update via an Axon Dock. This feature will also check and sync the time once per day, inherit configuration and setting changes made in Axon Evidence, and sync changes to the Wi-Fi Networks page of Axon Evidence.

Following are the configurable options and the default settings.

SETTING	DESCRIPTION
Video Settings	
Quality	Sets the video resolution.
Field of View	Determines the Field of View of the camera. Selecting 160° will provide a wider field of view, but will reduce battery life. For Flex POV users, the 120° setting is recommended for optimal battery life.
Aspect Ratio	Determines the cameras' video width-to-height ratio. 4:3 video will capture more video in the vertical direction. Both settings will capture the same video in the horizontal direction.
Video Recall	When enabled, the camera will keep an 18-hour buffer. Users with the correct permissions can recall evidence from that buffer using the ViewXL Standalone app.
Pre-event Buffering	Sets if video in the pre-event buffer is included in a video recording.
Watermark	Determines if a permanent watermark will be embedded on the video.
Watermark Mute Audio	When enabled, "MUTED" will appear in the watermark when recording audio is muted by the user. The Users Can Mute During Recording user permission must be enabled to configure this setting.
Watermark Local Time Zone	Sets the time zone in the permanent watermark.
Audio Settings	
Audio Recording	Determines if the camera records audio while recording video.
Pre-event Buffer (Audio)	Determines if audio is recorded in the pre-event buffer.
Battery Settings	
Optimized Capacity	When enabled, the camera will only charge to approximately 90% of full capacity. While this will reduce

SETTING	DESCRIPTION	
	runtime, it will improve long-term battery health and	
	reduce degradation. For maximum runtime, disable this	
	setting.	
Optimized Charging	When enabled, the camera will recharge more slowly.	
	While this will increase charge time, it will improve long-	
	term battery health and reduce degradation. To have the	
	camera recharge at maximum rate, disable this setting.	
Light Settings		
Front Light	Enables the visible indication of the recording status on the front triad LEDs	
Automatic Brightnoss	Enables the camera to automatically adjust the brightness	
	of its front and top lights based on ambient light.	
Location Settings		
Record location	Determines if location data is embedded when videos are	
information in video	being recorded.	
Make Location	Determines if location information is made available in	
Information Available	near real-time to authorized agency users when cameras	
to Axon Respond	are recording and/or buffering.	
Wi-Fi Positioning	Determines if location information is gathered from Wi-Fi	
	access points.	
Signal	Determines the camera's ability to activate recording by	
	Axon Signal products.	
False Signal	Determines if users can mark a signal activation as false.	
Cancellation		
Streaming		
Live Streaming to	Determines if cameras can stream audio and video while	
Axon Respond+	recording to authorized users.	
App Support Settings		
Axon View Pairing	Determines if cameras can pair with Axon View.	
Video Playback from	Determines if users can playback video while it is still on	
Device	the camera from Axon View or Axon View XL.	
Axon View Upload	Determines if users can allow or prevent evidence uploads	
	from Axon Body 4 cameras by using Axon View XL.	
Evidence Upload Setting	zs	
Priority Evidence	Determines if users can select evidence for wireless	
Upload	upload.	
Apply rate-limiting to	Enables users to set the maximum upload speed for each	
camera upload speed	individual camera, in megabits per second.	
Registration and Firmware Settings		
Registration	When enabled, unregistered AB4s will automatically	
	register to the same agency as the dock they are placed in.	
	Requires the dock to be registered. Only applies to	
	unregistered AB4s. Will not impact AB4s that are already	
	registered. It is recommended that this setting is disabled	
	once an agency is done registering their cameras.	

SETTING	DESCRIPTION	
Firmware Download	Allows users to adjust the maximum timeframe in which all	
timeframe	cameras will download a firmware update.	
User Permission Settings		
Users can mute during	Determines whether users can mute audio while recording	
recording	an event.	
Users can adjust	Determines whether users can adjust the settings for the	
indicator light settings	indicator lights.	
Users can adjust	Determines whether users can adjust the vibration	
vibration settings	settings (haptic) of their camera.	
Users can use stealth	Determines whether users can activate Stealth mode on	
mode	their camera.	
Users can use sleep	Determines whether users can activate Sleep mode on	
mode	their camera.	
Programmable	Programmable Button 1 - Determines device behavior	
Buttons	when button 1 is double pressed.	
	No Function	
	• Sleep	
	• Stealth	
	 Upload Last Video 	
	• Watch Me	
	Programmable Button 2 - Determines device behavior	
	when button 2 is pressed.	
	No Function	
	 Select (Can be used for Marker and Mute) 	
	Photo Marker	
	Audio Mute	
Device Management Set	tings	
Settings Return to	When enabled, user settings return to default settings	
Default in Dock	when the camera is docked.	
End Recording	This setting is designed to prevent unintentional ending of	
Confirmation	recordings. When enabled, ending a recording will require	
	a secondary confirmation press of the SELECT button.	
Power Off	When enabled, will require an additional confirmation to	
Confirmation	power off the camera by pressing the SELECT button.	

7 AXON EVIDENCE

7.1 AXON EVIDENCE OVERVIEW

Axon Evidence is a scalable, cloud-based Digital Evidence/Asset Management System (DEMS), which stores all digital evidence in a centralized, secure system. Axon Evidence integrates with the entire Axon Ecosystem of devices and applications, so your personnel can use its suite of features to easily store, organize, and view evidence.

Axon Evidence includes easy-to-use case-building tools and sharing workflows that allow users to build cases out of the evidence stored in the system. Once built, these cases can then be shared across your agency and with prosecuting partners in other agencies and jurisdictions.



Axon focuses on creating solutions to solve the complex challenges of digital evidence management. Rather than focusing solely on the camera or "capture" aspect, Axon looks at the bigger picture, considering the costs of ingesting, managing, retrieving, and sharing the data or the "capture to courtroom" workflow. We pay close attention to how officers interact with the application, as we believe it should conform to the needs of law enforcement and never the other way around.

After years of collecting feedback and listening to input from law enforcement, Axon created the Digital Evidence Workflow (DEW) framework. The DEW Framework was designed to help agencies make sense of complicated and complex systems and highlight areas where they could improve their efficiency and effectiveness. The Axon Evidence digital evidence management solution was designed to align with and simplify this workflow.



Axon Evidence automatically integrates with all Axon solutions including TASER CEWs, Axon Fleet, and Axon body-worn cameras. Axon Evidence also has manual bulk upload capabilities to ingest and manage many other forms of digital evidence.

Axon Evidence is a true end-to-end solution providing the application and the infrastructure required to run it. With Axon Evidence, all you need to access your evidentiary information is an internet connection and a standard web browser.

Axon Evidence can ingest assets from multiple sources, manage them simply with configurable metadata fields, retrieve them with an advanced search engine, automate access control and retention with intelligent workflow features, redact videos using powerful tools for FOIA requests, and collaborate effortlessly with other stakeholders using secure sharing features.

7.2 CJIS COMPLIANT CLOUD STORAGE

7.2.1 CJIS COMPLIANCE

Axon Evidence, the same application used for managing TASER evidence, is a cloud-based solution that complies with the Federal Bureau of Investigation's Criminal Justice Information Services (CJIS) Security Policy, which sets the minimum-security requirements to provide an acceptable level of assurance to protect the full lifecycle of Criminal Justice Information (CJI).

Axon Cloud Services was designed and is operated to ensure that it is compliant with the FBI CJIS Security Policy at both the application and data storage layers. Customers can be assured that their digital data is protected by a robust information security program that is designed to exceed the CJIS security requirements as well as provide protection against current and emerging threats. The Axon CJIS Compliance White paper outlines the specific security policies and practices for Axon Evidence and how they are



compliant with the CJIS Security Policy. Read more about Axon's CJIS Compliance program and commitments here. <u>http://www.axon.com/compliance</u>.

7.2.2 CLOUD IN MICROSOFT AZURE DATA CENTER

Axon Evidence is operated on an Infrastructure as a Service (IaaS) platform provided by Microsoft Azure. To achieve high levels of uptime, data is stored in the United States, replicated between two data centers, and spread across virtualized servers. The Axon Evidence application is designed to failover to other availability zones if an entire availability zone were to become unavailable.

Microsoft Azure data centers offer world-class security and system protection and employ physical security protocols, backup power, climate control, alarms, and seismic bracing. Axon Evidence's Microsoft Azure infrastructure has been designed to provide the highest availability while putting strong safeguards in place regarding customer privacy and segregation. Furthermore, the system is remotely monitored 24\7 by a team of engineers; any fault detected is immediately handled and the failed component replaced or restored from backup as necessary.

7.2.3 SECURITY MANAGEMENT FUNCTIONS

Axon Evidence offers numerous data security management functions to meet and exceed industry standards for the architecture and security of Axon Evidence. Axon has developed and operates secure software development lifecycle procedures

(SDLC). Execution within the SDLC ensures security is evaluated at every phase of development and that quality measures are met.

All evidence data is encrypted at rest and in transit. Robust SSL/TLS is implemented for data in transit using TLS 1.2 with a 256-bit connection and Perfect Forward Secrecy. Evidence data stored at rest is encrypted with at least 256-bit AES.

The graphic below offers a high-level view of the various layers of security implemented in the CJIS compliant solution.



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Axon's compliance with a number of security standards in addition to CJIS demonstrate our commitment to providing a trustworthy platform to our customers, and offers a way to understand the controls put in place to secure Axon Evidence and the data you store in it. These additional certifications, compliance measures, and security assurances include:

- ▶ ISO/IEC 27001:2013 Certified Information Security Management Standards
- ISO/IEC 27017:2015 Certified Code of Practice for Information Security Controls
- ISO/IEC 27018:2019 Certified Code of Practice for Protecting Personal Data in the Cloud
- CALEA Standard 17.5.4 Compliant
- HIPAA and HITECH
- > AICPA SOC 2 Type 2 Reporting (Applicable only to Axon Evidence)

- Cloud Security Alliance CSA STAR Attestation (Level Two)
- Cloud Security Alliance CSA STAR Self-Assessment (Level One)
- Accessibility Conformance Report WCAG 2.0 & VPAT/Section 508

7.2.4 UNLIMITED STORAGE

As a cloud-based system, Axon Evidence's architecture is modular, scalable, and extensible. Managing the vast amount of digital evidence available to agencies today can be overwhelming. Especially when the burden is on end users to keep evidence organized—no matter the source. This becomes even more difficult when digital evidence is stored in various locations, on different devices, and across many platforms.

Axon's unlimited third-party storage plan—which includes storage for both Axoncaptured evidence and third-party evidence—offers agencies a modernized approach to digital evidence management that is affordable, convenient, modular, secure and can scale to meet any storage requirements.

With unlimited storage, Axon Evidence can be the main source of storage for all digital evidence. You can then easily manage, store, share, receive, and investigate your data all from a single system.

To help with the usability of large data volumes, content that has not been viewed or accessed for six months may be moved into archival storage. Archived files are still searchable and can be retrieved with a single click.

7.2.5 DATA/CHANNEL SERVICES - THIRD PARTY DATA

An ever-growing list of different file types—including CCTV, photographs, audio, extractions from seized cell phones and laptops, dash cameras, resident doorbell cameras, interview room video, and documents—can all be grouped and managed in Axon Evidence.

Axon Evidence can ingest and store video, photos, files, and data from other mediums and store them independently or group them around a larger case.

If an agency wishes to store video or logs from facility surveillance systems, this can be imported into Axon Evidence, tagged and stored, in the same way as any other third-party files.

When you import an evidence file, Axon Evidence classifies the file by its file-type extension, such as .jpg, .mp3,.docx, or 'other'. You can filter evidence searches by file type.

Axon Evidence is source agnostic and can house virtually any video and audio file type (approximately 93% of all available codecs), as well as most digital document types. The online preview is supported for PDF documents and supported audio and video formats. Commonly supported file types are below:



7.2.5.1.1 AUDIO AND VIDEO FILES

7.2.5.2 PHOTOS

You can upload and store virtually any photo file type in Axon Evidence; you can view and edit ARW, BMP, CRW, DNG, GIF, HEIC, JPEG, JPG, NRW, ORF, RAF, SR2, SRF, TIF, TIFF files and RAW image extensions like NEF, CR2, and CR3 within the application. Photo editing tools for cropping, rotating, adjusting brightness and contrasts can be used on these file formats as well. Photos are exported from Axon Evidence in the format in which they were uploaded. For example, if the original photo evidence is uploaded as a JPEG, it will be downloaded from Axon Evidence as a JPEG.

7.2.6 AUDIT TRAILS

Robust evidence, device, and user audit trails help protect the chain of custody within Axon Evidence. For peace of mind, every action taken by your personnel when in the system is tracked and recorded in a tamperproof audit trail.

Detailed audit logs track all evidence access and activity. Each audit trail entry shows the date, time, user, and details of each action. You can view the entire audit log or a portion of an audit trail, limiting the report to actions that occurred between a specified timeframe. Audit Trails are available in PDF format, except the User Audit Trail and Device Audit Trail, which are available in both PDF and comma-separated values (CSV) format.

AUDIT TRAIL TYPE	DESCRIPTION
Agency Audit Trail	The Agency Audit Trail shows agency-wide changes to your Axon Evidence account. This report helps provide transparency on administrative actions across Axon Evidence. By displaying each action in detail, your agency can review who changed a setting, to understand the purpose and provide better accountability to each user. Only users with the "Edit Agency Settings permission" enabled can view the Agency Audit Trail.
User Audit Trail	A User Audit Trail shows many of the activities performed by the user, changes to the user account, and evidence-related user actions. In addition to evidence-related user actions, the User Audit Trail will show failed login attempts, when a user is locked out of their account due to multiple failed login attempts or when a user's password has been reset or their account has been unlocked.
Case Audit Log	The case audit log shows what updates were made to a case and when, including when tags were added or removed. You can export a PDF with the entire audit trail, or with information about a specific date range.
Group Audit Trail	The Group Audit Trail allows administrators to monitor the activity of groups within Axon Evidence and logs actions such as creating a group, adding or removing users from a group, changing permissions of a group, etc.
Evidence Audit Trail	Original evidence data is never changed; all modifications are handled by creating new, derivative files. Evidence Audit trails are created for every evidence file and list all related actions, as well as associated metadata. The original data associated with a video is never changed; all modifications are handled by creating new, derivative files. To ensure chain of custody, evidentiary files can be verified for authenticity by matching the SHA-2 hash of the original file ingested in Axon Evidence to that of any copy created.

Device Audit Trail	The Device Audit Trail shows events, actions, and changes for the selected camera. The audit information can be filtered to a particular date range or show the entire life of the camera. The Device Audit Trail can be used to audit actions performed on video while the file is still on the device (prior to upload). The audit information is available in both PDF and comma-separated values (CSV) format, with each event, action, or change shown on a different line in the audit trail.
Axon Respond Audit Trail	The Axon Respond audit trail consolidates all Axon Respond information, such as which users accessed the Axon Respond map or a livestream, into a single audit trail.

7.2.7 DATA RETENTION/DELETION

Axon Evidence gives agencies control over evidence retention schedules and facilitates options for when and how evidence is deleted from the system.

Axon Evidence has the following options for evidence deletion:

A U T O M A T I C D E L E T I O N	Automated deletion relies on categories that will be associated with a retention period. Axon Evidence will automatically trigger the deletion of a file according to the retention period associated with the category assigned to it. If no retention period is specified, then the video will remain on the system until manually deleted.
M A N U A L D E L E T I O N	The Axon Evidence administrator can also delete evidence as necessary manually. The Evidentiary Audit Trail will be retained after the evidence is purged for accountability. The audit trail will indicate if the file was removed manually or through retention via categories. Administrators can run reports on evidence created and evidence deleted within a specified time range.

7.3 WORKING WITH EVIDENCE

While working with evidence, users will review and playback video and audio with our built-in media player. With basic controls that allow a user to play, stop, rewind, fast forward, and control the speed at which evidence files are played, users can quickly and thoroughly review their evidence.

Within Axon Evidence, users can:

- > Search or browse to find and manage digital evidence;
- Replay videos or view other forms of digital evidence;
- View and add metadata, tags, notes and categories;
- Create clips and markers to focus on or specific parts of a video;
- Create redactions with powerful AI that helps automatically detect and mask common objects such as license plates, MDC screens, and faces; and,
- Share evidence and associated files and logs with other users or external partners.

7.3.1 SEARCHING AND MANAGING EVIDENCE

The search functionality in Axon Evidence is designed to reduce the time it takes to locate an evidence file. The search interface offers an intuitive and customizable design that allows users to quickly navigate the search fields and filters to find exactly what they are looking for.

Axon Evidence also supports bulk action capabilities that can save users time when managing the system and their evidence. For example, instead of going into the video player interface to perform actions on an individual video, Axon Evidence supports bulk actions that can be performed on one or many selected videos within the search results, which can save time when managing multiple pieces of evidence.

7.3.2 REPLAYING VIDEOS

7.3.2.1 STANDARD VIEWING TOOLS

The Axon Evidence media player enables you to play audio and video evidence files that are in supported file types. The player supports the following actions:

- Play
- Play faster or slower
- View Thumbnails
- Jump Ahead or Back
- Skip to Events
- Pause
- View Frame by Frame
- View Full Screen
- Rotate Screen
- Change video quality
- Mute, Unmute, or Control Volume

7.3.2.2 THIRD PARTY VIDEO PLAYBACK

The third-party video playback feature allows users with corresponding view permissions to playback videos not supported by the default video player. When the feature is enabled and a third-party video is uploaded, the system will automatically start converting the file so it can be viewed within the DEMS. Please note, the original video will remain unchanged in its original format and be maintained in the system together with the converted video available for playback.

Axon strives to add support for new file types regularly, but if a file in an unsupported format is found, users can contact <u>format-request@axon.com</u> to request that it be added. Adding support for a new format depends on the frequency of

requests for a given format, the ease of the code behind the format, and access to sample files for testing. Additionally, users can manually request conversion for files uploaded before the feature was enabled.

Files that are converted will show an informational message at the top of the video player to let the viewer know the video is not being presented in its original format.



With this feature, Axon Evidence supports playback of more than 1,000 file types and their variations, which have been included in the following table.

SUPPORTED FILE TYPES AND VARIATIONS

m2t, m65, max, mod, 3g2, 3gf, acsm, aira, ajp, am4, aov, arf, arv, ary, asx, avb, avc, avc1, avd, ave, ave-clean, avf, avi-clean, avi-time, avi_larger, avr, avs, awlive, ax, bdb, bes, bfs, bik, bin, bix, bk2, blk, bnp, body, box, bpv, braw, bu, bvr, bwm, bwv, camrec, cbf, cil, cli, cme, cpi, cvc, cx3, d, da, dad, dar, dat, data, dav, dav-clean, dav-time, dav1, dav3, dbx, dce, dga, dir, djp, dmi, dmskm, drv, dv, dv4, dv5, dvp, dvr, dvr~, dvs, dvt, dxa, edr, eds, epm, evf, ex01, exe), exe-clean, exe1, exp, extract, eye, ezvp, file, fl4, fla, flm, flv, g64, g64x, gbf, gop, gxf, h263, h264, h265, h3r, h4v, h64, har, hav, hbox, hgd, hik, hkv, hldvr, hm4, hme, i8, icf, ifo, ifs, ifv, igd, imoviemobile, irf, iva, ivf, jdr, jjj, jv, kds, kvf, lfv, lrv, lvf, lwx, lxf, m1v, m2ts, m2v, m4f, matroska, media, mgv, mjp, mjpeg, mjpg, mkv, mov2, mpg2, msi, mts, mxf, mxg, n3r, noext, oml, par, psf, rms, rrsc, strg, umv, v264, vcr, vid, video, vmhrcd, vse, webm

Please note, at this time file types supported by the default video player (mp4, avi, etc.) will not be supported while using this feature; however, file types that require a proprietary player/codec for playback will.

Axon Evidence also currently supports RAW formats from Sony, Nikon, and Canon.

7.3.2.3 MULTICAM PLAYBACK - INTEGRATING MULTIPLE VIDEOS

Both BWC and in car videos can be tagged in a number of ways that allow the videos to be associated, or found together when searching.

Videos, or any evidence, can be associated through the ID number or title.

Multicam playback allows videos that were recorded by different cameras but in the same location and time to be viewed together. This allows users to view an incident from different vantage points at the same time. Up to four videos can be viewed at the same time. Since each video has its own audio feed, the audio selector in the center of the media player controls enables you to select which audio track is used during playback.

While recording, cameras will note when other Axon cameras are recording in the same vicinity and add that information to the video file. Thus, when a video (with multiple perspectives) is viewed in Axon Evidence, it will automatically offer the multicam option to display the other video.

When viewing an evidence file, the multicam action is only shown as an option for videos that are associated with other videos recorded in the same vicinity at the same time. When the PLAY ALL VIDEOS option appears, this indicates there are multiple videos associated with a particular incident.



7.3.2.4 EXTRACTING VIDEO CLIPS

Within Axon Evidence, it is simple process to clip a video file, and create a more targeted view. Also, marks that were made in the field are fully accessible once the evidence has been uploaded, so it is easy to find an important section of video, and then create a clip of the relevant portion.

User can then share this shortened version.

	:43 11	● ── ♦ 🖸
10s 00.44 1m10s	: 1m30s 1m50s 2m10s 2m30s 2	2m50s 3m10s 3m30s 3m50s 4m10s 4m30s
CLIPS & MARKERS	REDACTIONS TR	RANSCRIPT
ADD MARKER ADD CLIP		
(Clip 1) AX 00:42 - 02:03	ON Body 2 Video 2017-03-28 1421 - CLIP 0 EXTRACTIONS	🖍 🛅 EXTRACT

7.3.3 WORKING WITH METADATA: TAGGING/INDEXING

Axon Evidence has a rich capability for tagging evidence through metadata. This data is used to create multiple indexing associations, so that they can be easily located via search and other record consolidation tools. Administrators can customize metadata fields to reflect agency standards.

Within a file, users can also add or update the metadata. All changes are captured in the evidentiary audit log. Users can add the following standard metadata (in addition to custom agency-specific metadata fields).

Numerous metadata tags can be applied to evidentiary assets. These metadata fields are included in the searching interface to help you locate the evidence you need quickly and efficiently. ID, title, notes, and tags are free text, searchable, user-defined values.

Categories are a powerful metadata tag that is agency configurable. This field allows administrators to create an unlimited number of categories, and to associate specific retention periods to automate archiving and deletion schedules.

Custom metadata fields are also available to further narrow search results. Custom metadata fields will appear below the standard metadata fields next to every evidentiary file. The feature supports three types of custom metadata fields:

- **FREEFORM** This is a free-form text entry field.
- VALIDATED This is a free-form entry text field, but the entry must conform to the Regular Expression (Regex) definition for the field.
- **DROP-DOWN** The user is presented with a list and selects information.



The following table lists the standard metadata items.

М Е Т А Д А Т А I Т Е М	DESCRIPTION
Title	An evidence title can be up to 256 alphanumeric characters. By default, the title populates with the camera type, date, and time (AXON Fleet 2 Video 2018-07-23 1654).
ID	An evidence ID can be up to 75 alphanumeric characters by default. The evidence ID field can be used to associate a file with the correlating CAD/RMS or incident ID.
Description	Descriptions of the evidence can be added or edited.
Tags	Tags are labels that you can apply to evidence and cases. On the evidence search page, a dropdown appears in the Tag search field and will display all tags in the system associated with evidence. Once you perform a search, you can then sort the results by ID, Title, etc.
Location	The specified location for evidence determines where the pin representing the evidence appears on evidence maps.
Notes	Notes can be posted about evidence. In addition to the text of the note, Axon Evidence shows the author of the note and the date and time that the note was created and updated
Categories	An unlimited number of custom categories (and associated retention periods) can be created and applied to your agency's evidence.
	The evidence category determines the following:
	 Whether the system will initiate automatic deletion of evidence assigned to the category.
	 How long the system waits before initiating the deletion of evidence that is not included in a case. Axon video deletions are based on the recording date. Deletion of all other evidence is based on the upload date.
Flags	You can flag evidence that you want to find more easily in the future. Evidence searches allow you to filter the search results by the flag status of evidence.
View Evidence with the Same ID	If multiple files have the same ID as the evidence being viewed, a paginated table of evidence with the same ID shows the title, owner, and upload date of each evidence file.

7.3.3.1 AUTO-TAGGING: CAD/RMS INTEGRATION

Auto-tagging is a feature that categorizes videos based on the correlated event metadata captured by the respective systems. Common data already collected by the CAD or RMS, such Event ID, Event Type, Officer Badge ID, and Dispatched and Cleared Times can be automatically associated with evidence, without the need for manual intervention.

Integrating your CAD or RMS system with Axon Evidence will save your officers valuable time, because the majority of tags will be automatically added by the system.

With auto-tagging, officers simply record videos with Axon body-worn or in-car cameras and upload them. Axon Evidence will use the data from the CAD and RMS solutions to apply the appropriate tags. Officers will still be able to add custom metadata tags in the field.

On a regular schedule, customers export a database-printout file to a specific folder from the CAD or RMS software. The printout file format, generally an .xml or .csv, is designed to comply with Axon Evidence requirements for integration.

Axon supplies a .NET 4.0 service "Integrator Application" on your server that monitors the selected folder. When the service detects the presence of a printout file, it encrypts the file using AES 256-bit encryption and sends it securely to Axon Evidence. After Axon Evidence confirms receipt of the file, the application deletes the local copy of the file.

Axon Evidence decrypts the printout file and parses the data found in the file. Using an algorithm, Axon Evidence determines which evidence file each piece of data applies to and tags those files appropriately. Evidence can be auto-tagged for 72 hours after upload, and then will require manual tagging.

When Axon Evidence finishes processing a batch of data received from the CAD/RMS solution, it sends the specified recipients a reporting email that includes summary results of the processing and detailed reports about evidence matched.



7.3.4 AXON AUTO-TRANSCRIBE

Axon Evidence includes unlimited auto-transcription, which is comprised of two features—Review Assistant and Transcription Assistant—to help agencies expedite evidence review and transcription processes. Review Assistant is designed to accelerate the process of reviewing evidence, while Transcription Assistant is designed to help quickly produce admissible transcripts for use in court or sharing with your justice partners.

7.3.4.1 TRANSFORM THE WAY YOU REVIEW EVIDENCE

With Review Assistant, users can quickly evaluate specific moments from an event by searching a time-synced transcript generated from evidence audio. Instead of sifting through unnecessary footage to discover a particular conversation, users can click a word in the transcript, which will take them to the point in the video when the word was used. This makes identifying and reviewing key events, such as the reading of Miranda rights, easy to access and highlight.

As a file is played, words in the transcript are highlighted in time with the current playback point. Users can use the search bar above the transcript to locate specific words in the entirety of the transcript; for ease, results can be clicked through and will be highlighted. Additionally, auto-transcribe is trained to identify a list of common keywords and displays these words above the transcript. Users can click one of the words to search and display all uses throughout the transcript.

	This transcript starts at Apr 21, 2022 10:58 AM -04:00 and is 1m 9s in length
	Mark Phillips 10:58 AM / 00:00 We cause is it all or nothing? Or can you activate it under just a couple of them? Julia Costa 10:58 AM / 00:04 It's all or nothing. I know it was annoying, but wait, till you see, Mark Phillips 10:58 AM / 00:09 We would do it on our, we would do it on our traffic cars. Like if we could just for a couple, but most of our fleet wouldn't need it. Julia Costa 10:58 AM / 00:19
	Alright. So your pair, your camera. Do you have Bluetooth? Okay. Um, let's see if the lights, so it's in buffering mode
Fast Evidence Review	AOPR lens. So you can also use this as a,
	Mark Phillips 10:59 AM / 00:44
Click to search transcript Q	Where is that on? Is it even here?
car (1) evidence (1) traffic (1)	Julia Costa 10:59 AM / 00:46 Yeah. Okay. Two lenses, so,
	Mark Phillips 10:59 AM / 00:50
Transcription Assistant Controls	Okay.
	Julia Costa 10:59 AM / 00:52
Play / Pause Auto-rewind on pause Tap to play, tap to pause Set to 2 sec	You got your evidence capture lens and then you've got your ALP, you don't see use this for 12 times digital zoom, so you could do surveillance. So if you want to point it wherever and then, um, can do it while it's recording, but.
Rewind Fast-forward Tap to jump 5 sec, or hold Tap to jump 5 sec, or hold	
Jump playback Single-click words to navigate the evidence	
Confirm word suggestion TAB Tap or hold. Any rejected suggestions in between are removed.	



7.3.4.2 TRANSFORM THE WAY YOU TRANSCRIBE EVIDENCE

As cases make their way through the justice system, an accurate transcript will be required at some point. Manual transcription typically takes 4-10 times longer to produce than the length of the actual audio, meaning there are often lengthy backlogs and budget constraints, which slow the delivery of admissible evidence. Furthermore, during the transcription process, transcribers are forced to repeatedly listen to potentially disturbing audio to ensure accuracy. To address these issues, Axon's Transcription Assistant offers access to powerful artificial intelligence (AI) and an intuitive user interface (UI) to help make transcribing audio faster and more efficient.

Transcription Assistant can produce a machine-generated transcript from evidentiary audio and video to offer users a starting point when creating a report. This allows users to quickly make corrections to the transcript, rather than repeatedly listening to a file. Additionally, Transcription Assistant tools automatically correct inaccurate portions of the machine-generated transcript if a user corrects the machinegenerated phrases. When our third-party video feature is activated, users can allow transcription assistant to process video from any converted source file.

Some of the key features of Transcription Assistant include:

- Corrections made easy with our unique "TAB to confirm suggestion" design along with other powerful keyboard shortcuts
- Customizable speaker labels
- Integrated into Axon Evidence to help alleviate unnecessary external email communication and file exports
- > Ability to auto-redact audio by selecting words or phrases in the transcript



7.3.5 REDACTING EVIDENCE

Within Axon Evidence, users can leverage our built-in redaction suite—which



includes our full-featured Redaction Studio, automatic Redaction Assistant tools, and basic redaction capabilities—directly from the cloud. Users can either manually redact evidence with precision using the Redaction Studio or utilize automated Redaction Assistant tools to expedite the redaction process.

As changes are made and redactions are created, Axon Evidence never alters an original evidence file. Instead, the system generates a list of each redaction associated with the evidence file, which can be accessed from the Redaction tab under the media player on the Evidence Details page. As multiple redactions are made, this list can help users easily access their redactions and ensure evidence integrity is maintained.

Redaction Studio (supported on Microsoft Edge, Firefox, Chrome, and Safari) allows users to review, playback, and redact an evidence file, as well as utilize redactions and annotation tools to determine what can be seen and heard when viewing a video or image.

Redaction Assistant tools are an add-on to Redaction Studio and provide powerful automated processes to track and redact common objects found in evidence files such as faces, license plates, and MDT/MDCs. By automatically tracking these objects via a single button click, the Redaction Assistant tools begin scanning the evidence file for any of the selected objects and apply masks throughout the video.

Users can download a Redaction Activity Report for evidence redactions done through Redaction Studio. The Redaction Activity Report lists objects added to a piece of evidence via Redaction Assistant tools or with Redaction Studio.

BASIC REDACTION TOOLS	REDACTION TOOLS STUDIO	REDACTION ASSISTANT TOOLS
Manual Redaction	🕨 Manual Mask	MDT/MDC Tracker
Object Tracker	Object Tracker	License Plate Tracker
Skin Blur	🕨 Audio Mask	Faces Tracker
	Extract Audio	
	Add Disclaimer	
	Redact Image	
	Document Redaction	
	▶ Text	

BASIC REDACTION TOOLS			
Manual Redaction	The Manual Redaction tool will automatically apply static masks to a video with precision and accuracy.	Verwet by user111 (Demo evidence con) (cr. 24 Jun. 2021 Verwet by user111 (Demo evidence con) (cr. 24 Jun. 2021 Image: Providence con) (cr. 24 Jun.	
Object Tracker	The Object Tracker tool allows users to set a frame around objects in the video for the system to automatically track and redact.	START FRAME END FRAME	
Skin Blur Redaction	The Skin Blur tool allows users to set a frame around a person in a video so that the system can automatically search for and blur skin tones throughout the entirety of the video.		
	The Manual Mask or Frame-by- Frame Manual Redaction tool	7	
Manual Mask	allows users to add a mask or outline marker to a video whether it is paused or being plated. This allows users to apply masks and outline markers to specific frames throughout the video, each of which can be extracted as a redaction.		

Audio Mask	The Audio Mask tool allows users select portions of audio they would like to mute (red area in image), or to add a short bleep to a section of video where audio has been redacted.	
Extract Audio	The Extract Audio option allows users to extract the audio only track from a video file in an .mp3 format.	Access Examination (r) Marcine and the Program Examination (r) Marcine and the Program Contraction (r) Marcine and the Program Contrean Contrean <thcontractin< td=""></thcontractin<>
Add Disclaimer	The Add Disclaimer tool allows users to select and add an agency-defined disclaimer to the beginning of a redacted video.	All Delawit X
Redact Image	The Redact Image tool allows users to apply a redaction mask to an image file. Users can change the mask blur level as needed and rotate the image.	
Document Redaction	The Document Redaction tool allows users to redact text, add masks, and add text annotations to PDF files.	<page-header><page-header></page-header></page-header>
Annotation Tools	Annotation tools allow users to add outline markers and text to video redactions. Frames can call attention to a particular object, as well as follow the object as the video progresses. The Text tool allows users to place text in a video.	

Bulk Redaction	Users can select multiple evidence files at once and initiate a bulk redaction. This creates copies of the original videos, applies a blur filter over the entirety all videos and removes audio.	Evidence nover grans Assistion - House - - - Image: State of the state of t				
AXON RED	AXON REDACTION ASSISTANT TOOLS					
MDT/MDC Tracker	Automatically identifies the MDT/MDC throughout a video.	(Vectors 1) Carso Thank UF (Note Along)				
License Plate Tracker	Automatically tracks a license plate throughout a video.	Address 0 Ball Annual Ball				
Faces Tracker	Automatically tracks a face throughout a video.	(Rediction 4) Video Unitaria for Propuestion				

7.4 USER/ROLE MANAGEMENT

7.4.1 USER ACCESS

Axon Evidence uses a Role-Based Access Control (RBAC) to allow appointed Axon Evidence administrators to configure granular, role-based permissions for users. From an access-controlled Administration page in the Axon Evidence interface, administrators assign each user a role to determine their permissions, and their permissions control levels of access to data, features, and functions within the solution. An unlimited number of roles can be supported and provide granular access permissions to allow you to configure the system to mirror normal operating procedures. Administrators can also add and edit roles as needed.

This ensures only authorized individuals can view and perform authorized actions on the data. Axon Evidence also supports customer single sign-on (SSO) and account registration over Security Assertion Markup Language (SAML) to enable integration into existing agency identity services.

Axon Evidence supports integration with Active Directory and Single Sign-On (SSO) allowing users to log in with their agency credentials and uses your network to authenticate users. Using the industry-standard SAML protocol lets you retain centralized control of user access to Axon Evidence and provides enhanced security, as usernames and passwords are not sent to Axon Evidence. Axon Evidence supports directory integration and updates via API, SCIM, or AD Sync Tool.

Axon Evidence supports enhanced access controls including password complexity requirements, failed login limits, and enforced timeout settings. Passwords for system and application administration require nine-character passwords and contain at least three of the four-character categories (Upper Letter, Lower Letter, Number, Symbol), as well as an optional special character. Step-up authentication is performed using a one-time, 6-character code delivered out-of-band to a previously authenticated device.

Axon Evidence also requires multi-factor authentication (MFA) by default for all users accessing the system. The method for the MFA security challenge is customizable at login; SMS text, authenticator application, and email are available options. Users will be able to mark devices as Trusted, meaning they will not be prompted for the additional MFA code when logging in from the device going forward unless Axon identifies an unusual risk. In addition to the required MFA upon login, when a user or administrator completes critical actions, they must respond to an MFA challenge as an additional layer of security.

Each of the following categories is expandable, enabling more granular permissions to be configured. Permissions are broken into several groups.

PERMISSION	DESCRIPTION
Login Access	Determines systems a user can log into.
User Access	Determines actions a user can take when using the system.
Admin Access	Determines administrative actions a user can take.
Search and Reporting Access	Determines what search functionality a user will have when using the system, as well as if reports can be generated.
Command Hierarchy	Determines if a user can add or remove groups from the Command Hierarchy.
Мар	Determines if a user can edit location names within maps.
Evidence Creation	Determines the methods in which a user can upload external evidence files into the system.
Evidence Management	Determines ability to create, review, edit, share, restrict, and manage evidence.
Case Management	Determines ability to create, review, edit, share, and manage a case.
Email Notification Preferences	Determines what email notifications will be received by a user.
System Status	Determines if a user can view the Axon System Status page.
ALPR	Determines ability to access ALPR functionalities.
Axon Performance	Determines ability to configure settings, view performance metrics, and initiate or view policy and video reviews.
Axon Respond	Determines actions such as viewing location maps, audit logs, and livestreams, as well as accessing videos on a device or marking alerts as false or resolved.

7.4.2 G R O U P S

The Axon Evidence Groups feature complements the RBAC system, providing additional control over what evidence can be viewed by users by leveraging an access control workflow to grant access to group members. This can reduce the number of individual users that have to be added to or removed from an evidence access list (described below).



7.4.3 ACCESS RESTRICTION LISTS AND CATEGORIES

Axon Evidence supports comprehensive access workflows to protect the privacy of information through restrictions. Restricting evidence will prohibit users from accessing files that would normally be able to view the file by default. Administrators can effectively enforce varying classifications of information confidentiality by applying restrictions through evidence Access Lists and Retention Categories (configurable categories that identify file type or content, control system retention periods, and allow or prohibit user access).

Each evidence file has its own access list, so administrators can granularly manage access to specific files by users and groups. Based on their roles and permissions, authorized users can restrict evidence files and add and remove users and groups from the files' corresponding access lists.

7.4.4 SHARING EVIDENCE

Axon Evidence enables users to share content with internal and external stakeholders without the need for additional licenses. This includes other agencies already using Axon Evidence or Axon Justice Premier, as well as external users who do not have Axon Evidence accounts.

7.4.4.1 SHARING WITH OUTSIDE AGENCY AXON EVIDENCE USERS

Axon Evidence makes it easy to share evidence and cases with other Axon Evidence agencies, as well as those utilizing our Justice Premier solution for prosecutors and public defenders. Since these external users already have Axon Evidence credentials, shared evidence can be used in the same way as their own digital evidence. After evidence is added to Axon Evidence, a user can simply share the case with any of their trusted partner agencies with Axon Evidence credentials.

As users share evidence with partner agencies, the partner agencies will only have access to the data a user has chosen to share via an access list. All unshared data remains completely unavailable.

When files are shared with a partner agency, Axon Evidence sends a copy of the files and their associated metadata, which the partner agency can manage independently without affecting the original evidence. Any evidence that is shared is preserved in its original form in the sharer's instance of Axon Evidence.

7.4.4.2 SHARING WITH NON-AXON EVIDENCE USERS

A user can share evidence with those who are not Axon Evidence users by emailing a download link to an external email address. Audit Trails, Table of Contents, and Transcripts, an Optional Message and the Duration in days that the share is active, can all be shared with the core evidence.

All included documents will be made available via a ZIP folder, which a recipient can access without having to sign into an Axon Evidence account.



7.4.4.3 DATA EXPORT

controlled once it is downloaded locally.

Users cannot modify original videos captured for chain of custody and chain of evidence reasons. If the original content or video evidence is uploaded as an MP4 it will be downloaded as an MP4 for review. Axon does not apply any proprietary formats when files are exported. This applies with any files such as PDF, DOC, AVI, WAV, MP3, AAC, etc. At the time of upload an SHA cryptographic hash function is generated and used to verify the integrity of the content uploaded. This SHA hash is also available at time of download for verification of authenticity.