LEAGUE CITY POLICE DEPARTMENT

VIDEO REPLACEMENT PROJECT

Abstract

Conduct research and field test for replacement of the Police Department's current video evidence system, including the use of body-worn cameras.

Travis Ladd

Lieutenant, Patrol Division

EXECUTIVE SUMMARY

CONTENTS

PURPOSE

The purpose of this Executive Summary is to provide a reference document that includes the history, development, and implementation of the League City Police Department's in-car and body-worn video evidence system.

BACKGROUND

In 2001, the League City Police Department partnered with L3 Mobilevision to install the agency's first in-car video system. The L3 Mobilevision software was purchased as an on-premise video evidence solution with an initial investment of $250,000 and an annual recurring maintenance cost of $10,000. Over the past three years, the League City Police Department has spent $291,172.25 to maintain and continue utilizing this system. The average cost per year has been $97,057.41.

L3 Mobilevision has failed to keep up with advancing technology over the past several years. Several local law enforcement agencies started with L3 Mobilevision but ultimately decided to change companies and partner with other vendors. Additionally, our Department was recently informed by an L3 representative that the company was acquired by Fleet Safety. After speaking with a representative from Fleet Safety, it appears Fleet Safety appropriated several market competitors leading to a consolidation of their product lines and an end of life for Mobilevision customer support. The L3 in-car video system used by the Department is obsolete and its lasting existence is highly suspect, therefore the Department must select a modern system. A review of modern systems shows current designs are founded on web-based technologies that emphasize scalability and functionality

The League City Police Department recommends the replacement of our existing digital evidence system, which includes in-car video, interview rooms, and the requisition of new body worn cameras. Peer-reviewed body-worn camera studies have demonstrated the capability to improve police/community relations through increased transparency and accountability. Body-worn cameras also have a noticeable impact on use-of-force incidents and citizen complaints which could protect the agency from costly ligation. Body-worn cameras aid in evidence collection, prosecution, help mitigate citizen complaints, and improve police legitimacy. A

survey of surrounding agencies indicates the League City Police Department is the only municipality not currently utilizing or being issued body-worn cameras. Most area agencies had body-worn camera systems in place for 2 or more years. The League City Police Department seeks to equip officers with body-worn technology designed to enhance professional service. We believe body worn camera technology will improve public trust through transparency and accountability.

The League City Police Department seeks to simultaneously replace all in-car video systems, interview room equipment, and acquire new body worn cameras from a single vendor to avoid working across multiple platforms. Working out of multiple platforms presents officers, evidence technicians, records specialists, and courts with additional challenges. It will increase confusion amongst staff, require additional staff hours to research the origin of video submission, and present cross platform redaction issues. Staggered implementation would cause inefficiency in business practices for an estimated 10 years while fleet equipment reached end of life.

GOAL/OBJECTIVES

Fund and replace existing in-car camera system, interview rooms, and acquire a body-worn camera system.

EVALUATION STRUCTURE/PROCESS

There are numerous in-car and body-worn camera vendors available for law enforcement. To discover which vendor and product solution would best meet the League City Police Department needs, a rigorous selection process was implemented. The evaluation process involved 5 distinct stages. The different stages happened in the following sequence:

1. **Document Research** - located and reviewed numerous articles, peer reviewed articles, professional journals, product reviews, and other documentation listing the different considerations of in-car and body-worn camera systems. Some of the sources for the

articles were the website for Community Oriented Policing Services, the Department of Justice, the International Association of Chiefs of Police, and company websites.

2. **Surveys** - a 10 question survey was developed and emailed to 220 law enforcement professionals across our region and state.

3. **Site Visits** - visited several area agencies to observe how the in-car and body-worn camera system worked. The agencies selected were departments who were using some of the more common vendors according to the survey responses.

4. **Vendor Demonstrations** - the top 3 vendors provide on-site product details during a demonstration. The top 3 vendors were chosen based on the prior research.

5. **Trial & Evaluation** - each of the top 3 vendors were put through a 30-day trial and evaluation process by our officers. Each evaluation period consisted of 5 officers wearing a body-worn camera for the 30-day period, at least 1 in-car system installed and tested, 25 video reviews by Lt. Ladd, and video evidence collecting and tagging performed by evidence personnel. Officers testing the in-car and body-worn cameras met as a group and discussed the pros and cons of each system at the end of the 30-day period.

INTERNAL CONSIDERATIONS

There are several internal considerations when evaluating and selecting a camera system that meets our agency's needs.

1. **Reliability** - the camera system must record high quality videos, fasten securely to the officers' uniforms, withstand a wide range of weather conditions, hold up in use-of-force and other physical situations, have a battery life that will last the duration of a 12-hour shift, and operate as advertised.

2. **Functionality** - a user friendly camera and software management solution, multiple ways to activate the recording system, collect useful meta data, links to CAD, works in conjunction with the in-car system, and offer multiple mounting options.

3. **Video and Evidence Management** - the system needs to utilize an efficient management system, allow for Records and Evidence personnel to access and process video when needed, provide easy solutions for tagging and submitting evidence, include redaction capabilities that are fast and efficient, and allow for remote viewing.

4. **Storage** - affordable unlimited cloud storage, ability to set retention terms in accordance with state and policy guidelines, government level security, ability to have other agencies such as the District Attorney's Office access videos through the cloud and locked in long term rates for the cloud storage.

5. **Sustainability**- vendor is established, continues to innovate and improve on products, products are up-to-date on the latest trends, products are covered under warranty or replaced if needed, and minimal if any future increase in costs.

6. **Customer Service** - company is reputable and known for outstanding customer service, have a history of meeting client needs, and receptive to law enforcement recommendations.

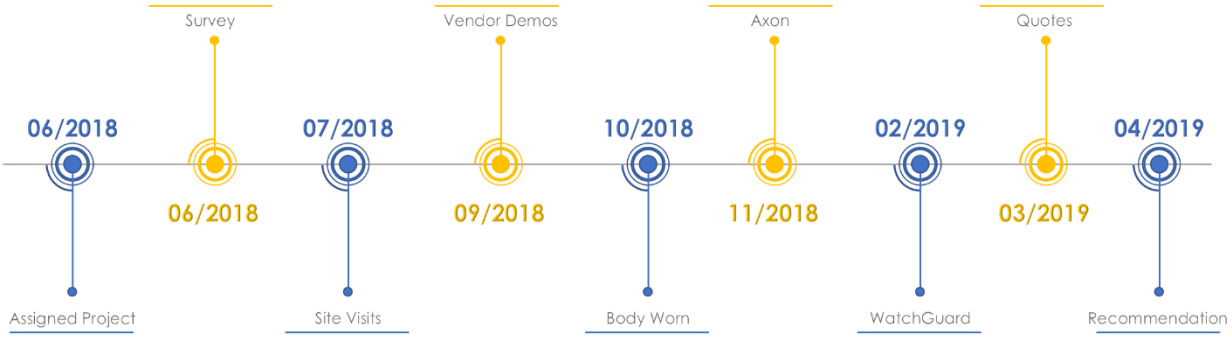
7. **Cost** - System is affordable, reasonable price for everything provided in the system, program efficiency allows for savings in personnel costs, and priced is in-line with current market trends.

EXTERNAL CONSIDERATIONS

Over the past decade, the public has come to expect that all police actions are video recorded. Requests for recordings have ranged from criminal and civil cases to officer complainants and media requests. There is little doubt that video requests will decrease with time. The Department's experience with the outdated L3 system has shown how a bad administrative feature in the software causes large and costly processing delays. The camera

system must allow for efficient and effective management of external requests for videos. Redaction and processing video requests need to be done so that it does not require additional personnel or time.

TIMELINE



CAMERA POLICY

805.05 BODY CAMS

Department Issued Body Cams

1. All digital multimedia evidence that is captured during the scope of an officer's duties is the property of the Department and shall not be converted or copied for personal use. Accessing, copying, editing, erasing, or releasing recordings or depictions of recordings without proper approval is prohibited and subject to disciplinary action.
2. The Chief of Police will designate an individual to manage the receipt and storage of Body Cam data not part of Cloud Storage. The data manager will routinely save data as necessary to long-term storage media Data not identified as necessary may be deleted after 90 days.

When Usage Required

1. During any citizen contact outside the officer's vehicle.

2. During any interview with a victim, witness, or suspect.
3. During any field or eyewitness identification.
4. During any enforcement contact when the officer is outside his vehicle.
5. During building searches and alarm responses.

Prohibitions

1. Officers shall not intentionally create digital recordings of other employees in areas where a reasonable expectation of privacy exists.
2. Officers shall not intentionally create digital recordings of citizens activities in areas where a reasonable expectation of privacy exists, unless the recording is made while the officer is legally in the area for one of the situations listed in section B above. Officers should be aware that under certain circumstances, e.g. victims or suspects in various stages of undress, the officer may consider stopping the recording and will explain the stopped recording in the report.
3. Officers shall not knowingly record undercover officers or informants.
4. Officers shall not use a departmental device to record any personal activities.
5. Officers shall not allow any non-sworn personnel to view the Body Cam or any other recorded data without the permission of the officer's supervisor.
6. Uploading of any Body Cam data to any social media site is prohibited.
7. Officers may use Body Cams only in-patient care areas of hospitals or emergency rooms when the recording is for official business.
8. To the extent possible, officers will attempt to prevent the recording of non-involved individuals.

Officer Responsibilities

1. Officers issued a department-owned Body Cam shall attend training and will demonstrate proficiency with the recording and transfer of recorded data.
2. Officers shall inspect the device at the beginning of each shift to ensure proper operation, including enough battery life and recording medium.
3. Any device found deficient at any time will be reported to the officer's supervisor who will issue a replacement if one is available.
4. Any Body Cam data created will be automatically uploaded to the Cloud Storage or downloaded / copied to the appropriate Department storage location before the end of shift (as applicable).

5. Any data that an officer believes might be evidence or is likely to be needed for any other purpose, such as a potential employee complaint, should be noted in official reports. If the recording may be needed and no report is made, the officer should contact the data manager, so the data may be flagged and kept secure as needed; however, all recorded data will be held in accordance with applicable laws.

Supervisor Responsibilities

1. Supervisors will attend department training on the use, retrieval, and storage of data, using Body Cams.
2. Supervisors will take such action to ensure data from Body Cams is transferred and stored properly and in a timely manner.
3. Supervisors will ensure that Body Cam data has been deleted from personally owned devices before officers leave shift.
4. Supervisors will remind officers of rules regarding Body Cam evidence on a regular basis.

RETENTION

The agency's current video retention policies are in accordance with State requirements and Best Practices. Non-evidentiary videos are stored for 90 days, and evidentiary videos are stored until cases are settled. Use of Force and Pursuit videos are stored for two years. Implementing body-worn cameras would not require any changes to the current retention practices, but it would drastically impact the number of videos and data stored.

Cloud based storage allows for unlimited storage possibilities. Unlimited storage capabilities eliminate the possibility of running out of storage space and future expenditures of additional servers and costs associated with the onsite storage.

Additional storage space has been purchased within the past 2 years to accommodate the in-car videos being stored, and it is not uncommon for server space to become unavailable at times due to the number of videos being downloaded. When server space becomes unavailable, videos cannot be uploaded or viewed with the current L3 Mobilevision system. This can have implications on processing cases, writing reports, clearing citizen complaints, and reviewing officer's videos. The videos do not upload until IT personnel locate new storage space

on the servers and make it available. Cloud based storage would ensure these issues would cease to exist and allow for efficient processing of videos.

VENDOR LIST

The top three vendors were selected after completing the document/on-line research, agency surveys, and site visits. The top three vendors clearly stood out from other systems and were used more prominently by regional and state agencies. The three vendors are listed below in order of their Trial & Evaluation period.

1. BodyWorn by Utility
2. Axon
3. WatchGuard

Trial & Evaluation was not conducted with L3 Mobilevision due to already using their in-car systems and knowing how their products have been relatively unchanged over the last 10 years. There were also multiple agencies who gave them poor reviews and switched companies after initially choosing them.

FIELD TEST & EVALUATIONS

The trial and evaluation for each vendor lasted for a minimum of 30 days. A total of 5 officers were involved in utilizing the body-worn camera systems during the trial period. These officers were selected based on their work productivity, objectivity, and shifts worked. At least one of the officers had an in-car system installed in their patrol vehicle during the test period.

At the beginning of the evaluation, company representatives would install the necessary equipment and train the officers, records personnel, and evidence staff on how to utilize the camera system and operate the management software. These officers were instructed to utilize the body-worn camera like they would utilize their current in-car system. If policy would require them to have their in-car camera and body mic recording, then they would need to have the body-worn camera recording. The officers had to tag and submit evidence as normal.

During each evaluation, the camera systems happened to be utilized in vehicle and foot pursuits, use-of-force situations, traffic stops, misdemeanor and felony arrest, and other citizen contacts. Each system was exposed to the different environmental conditions frequently encountered in our region.

The personnel testing the camera systems were tasked with evaluating the reliability, durability, and functionality of each system. The system needed to be easy for them to use while on scene and dealing with members of the public. It was vital the video management software was easy to navigate and efficient for storing and submitting evidence.

STAFF FEEDBACK

The officers who tested the body-camera and in-car systems had positive reviews for the BodyWorn by Utility and Axon systems. They stated both systems recorded high quality audio and video, were user friendly, reliable, and had an efficient video management system. The officers said there was very little difference between the two companies on those factors.

The officers stated the BodyWorn camera was worn and mounted on the uniform in a more secure manner which resulted in the camera never falling off during pursuits or use-of-force situations. They also liked how the camera was not bulky and sticking out from their uniform. The few negatives of the BodyWorn cameras were insufficient battery life, fewer mounting options when compared to other companies, and the system required the user to wear a Bluetooth wristband to manually activate the camera.

The officers like the Axon cameras ease of use. The Axon cameras manual activation and recording notifications operate very similar to the current L3 Mobilevision body mics, and this allowed for the officers to make an easy transition into utilizing body-worn cameras. The officers like the mobile app that could be used with the Axon system. This app allowed them to view their videos from their phone when needed. The officers had some issues with the Axon cameras falling off during the evaluation period when the officers were involved in foot pursuits and/or use-of force situations. The Axon camera was bulkier than the BodyWorn camera, but it did provide different mounting options.

The officers did not have favorable reviews after testing the WatchGuard cameras. The cameras recorded high quality video, but the audio on the cameras was impacted more by

outside noise such as wind and traffic. The officers stated the WatchGuard system seemed to be technologically behind the other two companies in terms of the camera hardware. The camera was bulkier than both of the other systems and had a LED screen to display who the camera was assigned to, date and time, and when recording. This LED screen was hard to read and was too bright when the camera was worn at night. The officers stated this camera system was not as user friendly as the other systems they tested. The WatchGuard system had multiple mounting options, but several of the camera mounts broke during the 30-day trial. One of the biggest complaints about this vendor was their customer service. Officers and IT staff were informed the install for the trial and evaluation would last approximately half a day, but the poor coordination, planning, and implementation by their IT staff and company representatives resulted in the install taking two full days.

At the conclusion of all three evaluation periods, there was a clear consensus on what the order of preference was for the officers and other personnel who were involved in the evaluation. The order of preference was Axon as the first choice, and BodyWorn by Utility being a close second. WatchGuard was the third choice, but several officers stated they would rather go without a body-worn camera than use the WatchGuard camera.

STORAGE CONSIDERATIONS

Every evaluated camera system was tested using cloud-based storage for the recorded videos and data. Cloud based storage offers several potential benefits over on-site server based storage.

1. **Security** - cloud based storage has the capability to offer a more robust security solution. Cloud based solutions allow for software to be updated on a more frequent basis which ensures they are better protected from malware and viruses.

2. **Scalability** - it is difficult to forecast how much data storage and processing capabilities will be needed with the addition of body-worn cameras. Cloud based storage provides unlimited storage and processing possibilities that can be expanded or reduced with minimal monetary and labor cost.

3. **Quicker deployment** - no need to purchase additional servers, install required hardware, or make other adjustments for a storage solution on site. Cloud based

systems allow for a deployment to be completed in a matter of hours or at most a couple of days.

4. **Maintenance and upgrades** - all needed maintenance and upgrades are built into the solution or managed by the vendor. This allows for agency and City IT staff to dedicate time to other agency and city needs instead of being consumed by the maintenance and management of the servers and on-site storage.

5. **Costs** - cloud based storage solutions have been shown to be more cost effective and allow for budget certainty. As mentioned above, they require less labor cost in terms of installation and regular maintenance which results in additional savings. There is no need to purchase any additional hardware to maintain the system or purchase additional server space if the storage capabilities are exceeded.

AGENCY IMPACT

A new in-car and body-worn camera system will increase the effectiveness and efficiency of the League City Police Department while continuing to build the community's confidence and trust in the organization. An up-to-date camera and management solution will allow officers to submit high quality videos which will aid in future criminal and civil proceedings. The cloud-based systems will allow officers to process the videos, complete reports, and complete evidence submissions more efficient manner which results in less time spent at the police station and more time patrolling neighborhoods and businesses. Utilizing one of these new systems will enable evidence and records personnel to be minimally impacted by the addition of body-worn cameras. They will be able to locate, retrieve, and perform any necessary redactions in one area which will cut down on time requirements and any need for additional staff. These systems also allow for evidence to be shared with prosecutors through the cloud which means there is no need for evidence technicians to download and burn a DVD copy and have a courier transport it to the District Attorney's Office. The prosecutor can access the video on-line as soon as it is uploaded.

The addition of body-worn cameras will add a new level of transparency and accountability to the League City Police Department. The days of in-car video being enough are

ceasing to exist. Today's age of everyone having a video camera in hand requires law enforcement agencies to protect their officers, citizens, and agency from false narratives that can be the result of limited perspectives. Body-worn cameras have proven repeatedly across the nation to capture another perspective of police contacts, and the new perspectives helped minimize the backlash which could have resulted from misinformation. Fortunately, the League City Police Department has not been in one of these incidents yet, however, there has been the opportunity for it several times over the past 18 months. League City officers have been involved in 4 shootings over the past 18 months. It would have been extremely beneficial if the officers involved in these encounters would have had body-worn cameras during those situations.

The positive impact of body-worn cameras will be drastically diminished if the agency decides to utilize two camera systems, one for in-car video and one for body-worn cameras. Instead of reducing time required to investigate, process, and complete cases, operating out of two systems will increase the time needed. Videos will have to be viewed in two different programs and require multiple evidence submissions. If officers are having to spend more time at the station, then they will have less time to proactively patrol and handle issues in the community. This will not only require more time from everyone involved in the video collection and processing, but it will increase the likelihood of mistakes during the process. Mistakes and errors in evidence submission and processing could impact future prosecution of cases. Operating out of one system that includes in-car and body-worn cameras will ensure the League City Police Department continues to exhibit the highest level of professionalism and service to the community.

COST ANALYSIS

A comprehensive in-car and body-worn camera solution is a long-term investment requiring consideration of the long-term benefits versus cost. The BodyWorn by Utility and Axon solutions are comparable in terms of what is included in their quote for a complete overhaul of the current system, the addition of body-worn cameras for sworn personnel, and unlimited cloud storage with a more advanced management software. Both companies have a comprehensive warranty, 24/7 technical support, regularly scheduled software updates pushed out through the Cloud, and an equipment refresh every 2.5 years. Both systems would save money in labor costs for maintenance for IT staff and management for police personnel.

BodyWorn by Utility was willing to provide a written guarantee that we would not incur any more than a 2% increase in cost at the end of the 5 years. Axon stated they could provide a similar guarantee, but it never materialized. Axon could provide a guarantee not to raise cost more than 2% on Cloud storage or body-worn cameras at the end of 5 years. Both companies were hesitant to give 10-year quotes.

WatchGuard's quote for a complete change over to their system included all the hardware and software needed to make the system operational, but their quote had some omissions that were in the BodyWorn and Axon quotes. The most notable difference was the lack of any warranty outside of the first 12 months. An extended warranty could be purchased, but their price is already as high as the other two before included any extended warranty. If WatchGuard was chosen, an extended warranty would be advisable. Several agencies using their products have had mechanical issues requiring new cameras, and these issues have caused unexpected costs. The other issue is a lack of redaction software in their management software. The redaction software can be purchased to accompany the software, but it will be needed to add to the price. Of the three companies tested during the Trial & Evaluation, WatchGuard required a considerable amount of time and assistance from League City IT staff. The amount of time needed to make 5 cameras operational gives the impression that if this system was selected they would not save any labor costs for in-house IT staff.

L3 Mobilevision would be the cheapest alternative in terms of immediate monetary cost due to the fact that all of the patrol fleet and interview rooms are currently using their products. However, the savings would be minimal if there are any at all in the future. Every agency visited and contacted who used L3 at the time of this project has completely moved away from the L3 body-worn cameras and is in the process of changing out their in-car cameras. If the L3 body-worn cameras were purchased, the agency could be stuck with those products with the strong possibility of moving to another system in a year or two. The other immediate and long-term cost associated with L3 would be the addition of required server space. The agency is already at a place where storage space on the server must be shuffled around on a regular basis to allow videos to be downloaded onto the server. This will become more problematic with the introduction of body-worn cameras, because the number of videos being stored will more than double. The L3 body-camera management software does not include redaction software which will have to be purchased separately. The L3 system would cause the agency and city to incur more labor costs. The on-site storage and maintenance to the system would require IT staff to dedicate considerably more time to this system than the

other three choices. The L3 system is would require more time from officers, Evidence staff, and Records personnel due to the outdated software used to process and manage evidence.

5-year cost for complete comprehensive video evidence solution

Vendor	BodyWorn by Utility	Axon	WatchGuard	L3 Mobilevision
In-Car Systems	75	75	75	10 per year
Body-Worn Systems	132	132	132	132
Interview Rooms	9	9	9	0
Storage	Unlimited Cloud storage	Unlimited Cloud storage	Unlimited Cloud storage	Limited on-site server-based storage must purchase additional server space $25-30k
Evidence Management	Included	Included	Included	Included
Inclusion	24/7 Support and Complete warranty	24/7 Support and Complete warranty	Support	None
Exclusions	None	None	Warranty and Redaction software	Extended warranty
Cost	$999,999.00	$1,244,548.42	$1,177,936.00	$116,657.50*

*This quote does not include in-car systems or additional server space.

5-year cost for only implementing 60 body-worn cameras

Vendor	BodyWorn by Utility	Axon	WatchGuard	L3 Mobilevision
Body-Worn Systems	60	60	60	60
Storage	Unlimited cloud storage for devices	Unlimited cloud storage for devices	Unlimited cloud storage for devices	Limited on-site storage space
Inclusion	24/7 Support and Complete warranty	24/7 Support and Complete warranty	Support	None
Cost	$270,000.00	$292,931.00	$279,479.00	$68,037.50

RECOMMENDATION/PROPOSED ACTION

The League City Police Department should adopt a new in-car camera system and implement the use of body-worn cameras. These changes will help ensure the agency exhibits the highest level of professionalism, continue to provide quality police services to the growing community, while increasing the sense of trust and accountability with the public. To accomplish these ends, the agency should move forward with Axon or BodyWorn by Utility. Both products have demonstrated they will meet the high level of expectations set forth, and both companies have a track record of being on the forefront of technological advances in this field. Axon would be preferred by the officers and would likely be an easier transition moving forward with body-worn cameras. Axon is also the larger company and has the added benefit of future stability as the video evidence market continues to develop.