



ESTA BOARD AGENDA

Regular Meeting

Friday, January 11, 2019 at 9:00am
City of Bishop Council Chambers
301 West Line St, Bishop, California

The Agenda is available at www.estransit.com

Chairperson: Jeff Griffiths

Vice-Chairperson: Bob Gardner

Board Members:

Kirk Stapp (Mammoth Lakes)
Karen Schwartz (Bishop)
Jim Ellis (Bishop)
Dan Totheroh (Inyo County)

Jeff Griffiths (Inyo County)
Jennifer Halferty (Mono County)
Bill Sauser (Mammoth Lakes)
Bob Gardner (Mono County)

Note: In compliance with the Americans with Disabilities Act, if an individual requires special assistance to participate in this meeting, please contact Eastern Sierra Transit at (760) 872-1901 ext. 15 or 800-922-1930. Notification 48 hours prior to the meeting will enable the Authority to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 13.102-35.104 ADA Title II)

Call to Order

Pledge of Allegiance

Roll Call

Public Comment: The Board reserves this portion of the agenda for members of the public to address the Eastern Sierra Transit Authority Board on any items not on the agenda and within the jurisdiction of the Board. The Board will listen to all communication, but in compliance with the Brown Act, will not take any action on items that are not on the agenda.

A. Information Agenda

- B-1 Executive Director Report
Reporting on ESTA activities and performance.
- B-2 Closed Session
Conference with Labor Negotiators. (Pursuant to Government Code Section 54957.6) – Authority designated representatives; Phil Moores, Karie Bentley, and John Vallejo. Bargaining Group; ESTA-EEA.

C. Action Agenda

- C-1 Bus Camera Purchase
An RFPQ was issued and three quotes were reviewed.

D. Consent Agenda (Roll Call Vote) the following items are considered routine and non-controversial by staff and will be approved by one motion if no member of the ESTA or public wishes an item removed. If discussion is desired by anyone, the item will be removed from the consent agenda and will be considered separately. Questions of clarification may be made by ESTA Board members, without the removal of the item from the Consent Agenda.

- D-1 Approval of Meeting Minutes of December 14, 2018
- D-2 Conflict of Interest Code Review

E. Board Member Comments

F. Adjournment

The next scheduled regular meeting will be **February 8, 2019** in Mammoth Lakes, Town of Mammoth Lakes Council Chambers, 2520 Main St., Ste Z at 11:00 am.

STAFF REPORT

SUBJECT: Executive Director's Report
PRESENTED BY: Phil Moores, Executive Director

Safety:

On-board safety kits are being assembled for buses in Mammoth. They will include tools to clear the snow from the wheel wells, clean windows, ice scraper, tarp, wrenches, etc... Accumulation of snow in the wheel wells interferes with steering and loose windshield wipers are causing unnecessary delays.

ESTA is addressing some ergonomic issues to prevent injury in the office and in the driver's seat. Chairs are being repaired or replaced and two employees (Stefani Bandini & Dawn Vidal) are attending ergonomic training at Bishop Fire Station on February 8. Workstations will be evaluated for risk of injury.

The onboard bus video RFPQ was issued in December and the required three quotes were obtained (Item C-1). Video is necessary for a number of reasons. Investigations such as collision, passenger injury, customer comment, and police to name a few. We expect installation to fifteen buses including twelve Mammoth 40-footers by spring this year.

Administration:

We are interviewing for several positions. Besides the ongoing Bus Operator positions, we are interviewing internally for temporary Dispatchers to cover for the two Bishop Dispatcher's eventual absence due to pregnancy and surgical procedure. We are also looking for a trainer to attend Transit Safety Institute (TSI) Instructor certification training. This certification is required to sign off on new Bus Operator training. This training is schedule for April 2019.

Our DMV Employer Testing Program is approved and Mammoth Mountain DMV Examiner, Brian Bethky, will be contracted to conduct our DMV testing. This improves our processing of new Bus Operators since we will no longer need to rely on the availability of appointments at the DMV. Since DMV Examiners can also train the new Bus Operator, they can prepare them accurately for the tests and greatly improve the success rate. ESTA intends to send the Bishop Supervisor, Chris Usher, to Examiner training in June.

There were small progresses made in response to the Organizational Assessment of October 2017. The Camera RFPQ and ongoing procedural changes are contributing to compliance of the report. If there are no Board member objections, we would like to begin a quarterly report of this item.

ESCOG meetings shifted to the second Friday of the month for 2019. This shortens the window for ESTA data collection and review. Therefore, ESTA financial and operational reports will begin reporting on prior months data. For example, this means data thru December 2018 will be reported at the February 8th Board Meeting.

Training:

We recently successfully trained and licensed four drivers. There are three more in process and numbers of applications for Bishop are strong. Drivers in Mammoth are feeling some relief. However, we are still not out of the woods with driver shortages.

Planning:

Greyhound in Reno recently closed and moved to Sparks, NV. The move was with no warning and we are planning to make adjustments to the Lone Pine-to-Reno service to accommodate the changes.

We are reviewing grant opportunities for 2019 with Caltrans and plans for the new Bishop Yard facility are continuing in coordination with Inyo County's Clint Quilter.

STAFF REPORT

SUBJECT: **Bus Camera Purchase**

PRESENTED BY: **Phil Moores, Executive Director**

BACKGROUND/DISCUSSION:

In an effort to utilize CalOES Prop 1B Security funds that have been spent down over the years, an RFPQ was issued and due January 4, 2019 for bus camera systems. Expiration of the funds is March 31, 2019. The required three quotes were obtained and Apollo Video was selected as the most cost-effective vendor. The three quotes are attached as C-1-2 thru C-1-67. Ten video systems can be obtained and installed with the \$53,065 of remaining funds. The video systems are expected to be installed mostly on the 800 series buses where the lion's share of the liability exists.

Two of the quotes received installed demo units on vehicles for ESTA's review. Apollo emerged as the clear leader when the entire product including software was tested.

Recommendation

Staff recommends that the board grant the contract for onboard cameras to Apollo Video.



TM
RoadRunner

Eastern Sierra Transit Authority



Bus Security Camera
Purchase Request for
Price Quotes RFPQ 2018-
001

01/04/2019

Table of Contents

- a. Cover Letter..... 3**
 - 1. Identification of proposer 3
 - 2. Proposed working relationship with other firms.....3
- b. About Apollo Video Technology 4**
 - 1. Profile 4
 - 2. Qualifications.....4
- c. References 6**
- d. Technical Proposal..... 9**
- e. Price Proposal..... 17**
- f. Product Brochures and Case Studies 18**
 - a. Product Brochures.....18
 - b. Case Studies.....19

a. Cover Letter

January 2, 2019

Eastern Sierra Transit Authority Attn:
Phil Moores, Project Manager Email:
pmoores@estatransit.com

Dear Mr. Moores,

Apollo Video Technology is pleased to propose the RoadRunner 4K™ solution in response to the authority's invitation for quotes for a Bus Security Camera Purchase.

The RoadRunner 4K solution will provide the best value to the ESTA with long-term advantages due to the system's durability, and focus on forwards and backwards compatibility. Apollo Video is unique in the industry with software interoperability and compatibility across multiple generations of hardware. This ensures longevity of the solution through changes and additions to the fleet.

Apollo Video has implemented thousands of successful, technologically advanced and cost effective video solutions for public transit, public transportation, rail, law enforcement, public safety and military applications throughout the United States and around the world. In 2017, Apollo Video was named the No. 1 supplier of transit bus mobile video surveillance equipment in the Americas ([IHS](#) Technology Mobile Video Surveillance and Body Worn Cameras Report) – an achievement held since 2011 that further supports the company's commitment to offer its customers superior, compatible solutions throughout the lifetime of their fleet.

We welcome any questions you may have and look forward to the opportunity to work with ESTA on this project.

Best regards,

Dan Kelleher
Vice President, Sales
Apollo Video Technology, a Luminator Technology Group Company
Tel: 972.516.3073
Email: sales@apollovideo.com

1. Identification of proposer:

Apollo Video Technology; Contact:
Matt Siwek, Director of Sales; (425)

483-7100; Email:

sales@apollovideo.com

ABT Products and Services; Contact: Lisa
Horchos; (631) 4210-1500; Email:

2.

lhorchose@abt-products.com

**Proposed working relationship
with other firms**

b. About Apollo Video Technology

1. Profile

For over 14 years, Apollo Video Technology has provided innovative transportation information, management, safety, and security solutions. The RoadRunner™ mobile video and audio recording system provides exceptional quality with management software optimized for wireless downloading and live video streaming. Renowned for reliability, durability and ease of use, Apollo Video solutions improve accessibility of data and deliver streamlined, fleet-wide management of video surveillance and on-board equipment to reduce liability, mitigate risk and improve efficiency, while reducing maintenance and operating costs. Apollo Video is unique in the industry, providing software interoperability and compatibility across multiple generations of hardware.

Apollo Video has been ranked the No. 1 supplier of transit bus mobile video surveillance equipment in the Americas since 2010¹ — an achievement that further supports the Company's commitment to offer its customers superior, compatible solutions throughout the lifetime of their fleet.

In 2017, the Company joined Luminator Technology Group (LTG). Recognized globally for delivering state-of-the-art passenger information systems and vital transportation solutions, the collaboration with LTG enhances integration, product and technology offerings to better serve existing and future customers.

Since its release in 2004, Apollo Video has supplied the RoadRunner system to over 400 agencies worldwide, representing more than 35,000 total implementations for the following applications:

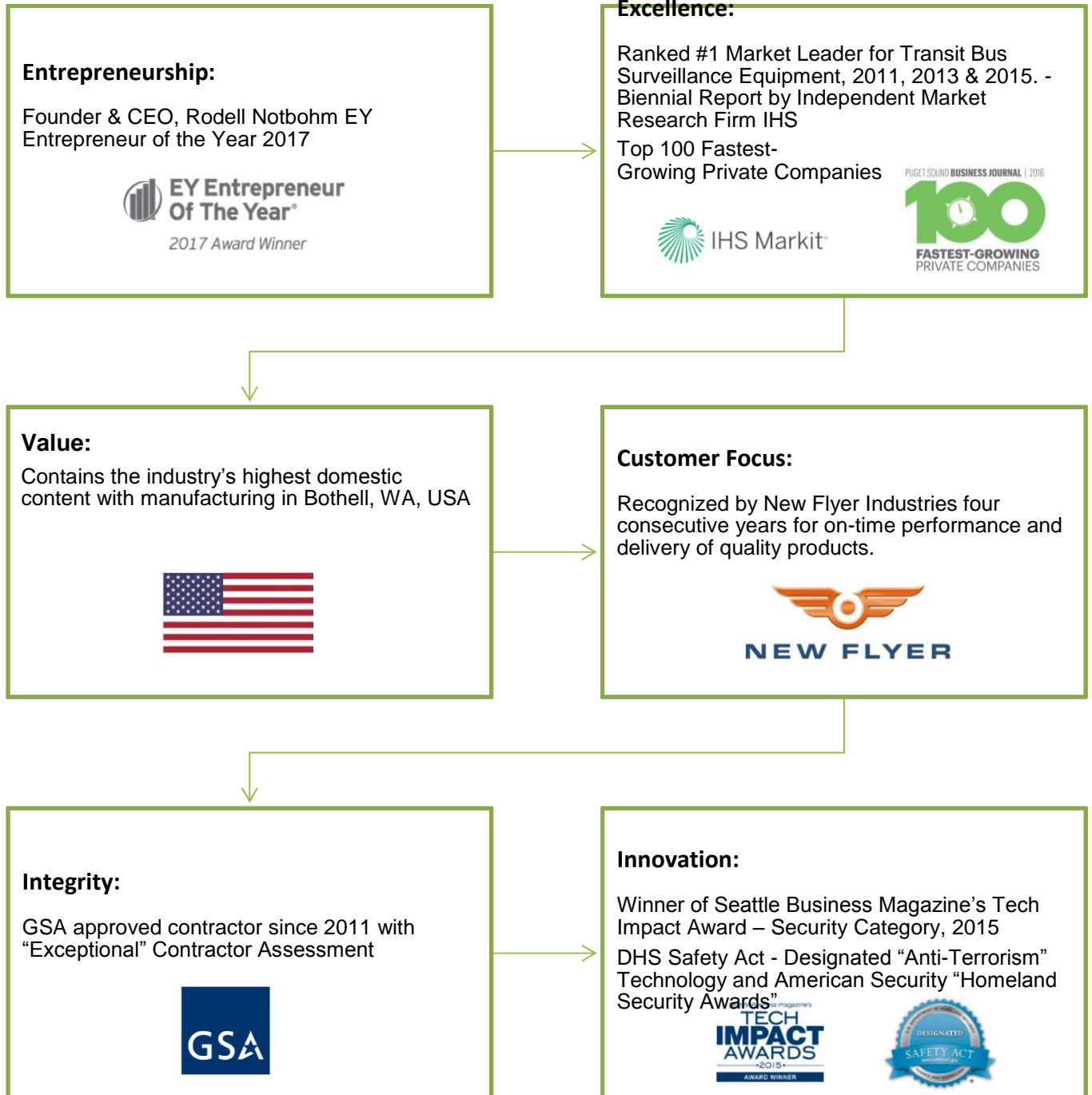
- Transit & Rail
- School Transportation
- Law Enforcement
- First Responders
- Military & Government Applications

2. Qualifications

Apollo Video Technology is the market leader in transit video surveillance solutions. With a nationwide network of dedicated video surveillance system engineers and technicians and a global network of engineers dedicated to providing the most effective and reliable transit solutions, Apollo Video has the resources, expertise, and past performance to provide the highest quality solution for the Authority.

The following certifications and accolades demonstrate our commitment and achievements:

¹ IHS World Market Report for Mobile Video Surveillance and Body Worn Cameras



C. References

AC Transit (Alameda Contra-Costa Transit District)

PO Box 28507 - Oakland, California 94604

Contact: Salvador Llamas; Tel: 510. 891.7215; Email: sllamas@actransit.org

Alexandria Transit Company / DASH

116 South Quaker Lane - Alexandria, Virginia 22314

Contact: Todd Christiansen; Tel: 703.746.5649; Email: todd.christiansen@alexandriava.gov

Asheville Transit System

360 W Haywood Street – Asheville, North Carolina 28801

Contact: Nancy Lohr; Tel: 828.251.4060; Email: nlohr@ashevillenc.gov

“[Compatibility] saves us time and resources, eliminating the need for additional employee training to cover multiple versions of software. ART buses currently operate all four generations of Apollo Video hardware and one software solution. This is truly a unique asset to have in a service provider.”

–Norman Schenck, General Manager Asheville Redefines Transit

Capital Area Transit

901 North Cameron Street – Harrisburg, Pennsylvania 17105

Contact: Karin Cain; Tel: 717.233.5657; Email: kcaine@catransit.com

Chattanooga Area Regional Transportation Authority

1617 Wilcox Boulevard - Chattanooga, Tennessee 37406

Contact: Annie Powell; Tel: 423.629.1411; Email: powell_annie@gocarta.org

City of Lincoln / StarTRAN

440 S 8th Street - Lincoln, Nebraska 68508

Contact: Mark Stevens; Tel: 402.441.7191; Email: mstevens@lincoln.ne.gov

City of Santa Clarita

28250 Constellation Road – Santa Clarita, California 91355

Contact: Corie Zamora; Tel: 661.295.6303; Email: czamora@santa-clarita.com

Clark County Transit (C-TRAN)

PO Box 2529 – Vancouver, Washington 98668

Contact: Glenn Hanning; Tel: 360.906.7359; Email: glennh@c-tran.org

“In a recent incident when a C-TRAN driver took evasive action to avoid a collision, a video clip was quickly and seamlessly downloaded and viewed using the ViM Software.... Clearly substantiated the drivers report and plainly revealed the license plate number of the other vehicle involved.

- Bob Medcraft, Field Operations Manager Clark County Transit (C-TRAN)

Delmarva Community Services / Transit

2450 Cambridge Beltway - Cambridge, Maryland 21613

Contact: Jerome Stanley; Tel: 410.221.1910; Email: jerome@dscdct.org

Eagle County Transit

3289 Colley Mesa Road – Gypsum, Colorado 81637

Contact: Lance Trujillo; Tel: 970.328.3440; Email: lance.trujillo@eaglecounty.us

Edmonton Transit Authority

8729 – 58th Avenue - Edmonton, Alberta T6E 5W4 Canada

Contact: Musse Dese; Tel: 780.496.3091; Email: musse.dese@edmonton.ca

Escambia County Area Transit

1515 West Fairfield Drive - Pensacola, Florida 32503

Contact: Ted Woolcock; Tel: 850.595.3228x 225; ted.woolcock@veoliatransportation.com

CONFIDENTIAL PROPOSAL NOT
FOR PUBLIC RELEASE

Everett Transit

3201 Smith Avenue - Everett, Washington 98201

Contact: George Baxter; Tel: 425.257.8935; Email: gbaxter@ci.everett.wa.us

Fredericksburg Regional Transit

1400 Jefferson Davis Highway - Fredericksburg, Virginia 22401

Contact: Wendy Kimball; Tel: 540.372.1222; Email: wlkimball@fredericksburgva.gov

Greater Cleveland Regional Transit Authority

1240 West 6th Street – Cleveland, Ohio 44113

Contact: Charles Brown; Tel: 716.781.4842; Email: cbrown@gcrta.org

Greater Lynchburg Transit Company

1301 Kemper Street - Lynchburg, Virginia 24501

Contact: Allen Robey; Tel: 434.455.5092; Email: arobey@gltonline.com

Greeley-Evans Transit

1200 A Street – Greeley, Colorado 80631;

Contact: Will Jones; Tel: 970.350.9751; Email: will.jones@greeleygov.com

Interurban Transit Partnership (The Rapid)

300 Ellsworth Avenue SW – Grand Rapids, Michigan 49503

Contact: Brian Pouget; Tel: 616.774.1195; Email: bpouget@ridetherapid.org

“The system provides real-time monitoring of video and location data and sends our management staff comprehensive vehicle reports and data, ensuring the safety and efficiency of the Rapid Fleet.”

-Brian Pouget, COO Interurban Transit Partnership (The Rapid)

Jacksonville Transportation Authority

100 N Myrtle Avenue – Jacksonville, Florida 32204

Contact: Burse Armstrong; Tel: 904.525.2298; Email: bjarmstrong@jtafla.com

Johnson City Transit

137 West Main Street – Johnson City, Tennessee 37604

Contact: Jeff Rawles; Tel: 423.434.6270; Email: jrawles@johnsoncitytransit.org

Maryland Transit Administration

6 St. Paul Street - Baltimore, Maryland 21202

Contact: Wilson Wallace; Tel: 410.454.7374; Email: wwallace@mtamaryland.com

Mercer County Regional Council of Governments

2495 Highland Road – Hermitage, Pennsylvania 16148

Contact: Greg Perrine; Tel: 724.981.1561 x 3105; Email: gregp@mrcog.com

Michigan City Transit

1400 W Garfield Street - Michigan City, Indiana 46360

Contact: Charlie Cate; Tel: 219.873.7591; Email: ccate@emichigancity.com

New Castle Area Transit Authority

311 Mahoney Avenue – New Castle Pennsylvania 16102

Contact: David Richards; Tel: 724.654.3130; Email: drichards@newcastletransit.org

PACE Suburban Bus

405 Taft Drive - South Holland, Illinois 60473

Contact: David Grillier; Tel: 847.364.8130; Email: david.grillier@pacebus.com

Potomac and Rappahannock Transportation Commission (PRTC)

14700 Potomac Mills Road - Woodbridge, Virginia 22192

Contact: Doris Lookabill; Tel: 703.580.6153; Email: dlookabill@omniride.com

Queen Anne's County Maryland

104 Powell Street – Centerville, Maryland 21617

Contact: Ann VanBenschoten; Tel: 410.758.0848; Email: avanbenschoten@qac.org

Railhead Vision Systems

10721 S Western Avenue - Chicago, Illinois 60643

Contact: Joe Donnan; Tel: 773.779.2400; Email: j.donnan@sbcglobal.net

San Diego Metropolitan Transit System

1255 Imperial Avenue, Suite 1000 – San Diego, CA 92101

Contact: Dennis Hinton; Tel: 619.238.0100; Email: dennis.hinton@sdmts.com

Space Coast Area Transit

401 Varr Avenue - Cocoa, Florida 32922

Contact: Scott Nelson; Tel: 321.635.7815; Email: scott@ridescat.com

Volusia County Transit (VOTRAN)

950 Big Tree Road – South Daytona, Florida 32119

Contact: Elizabeth Suchsland; Tel: 386.763.3727; Email: esuchsland@co.volusia.fl.us

Washington Metro Area Transit Authority (WMATA)

3500 Penny Drive - Landover, Maryland 20785

Contact: Debra Childers; Tel: 410.900.5959; Email: dchilders@wmata.com

Williamsburg Area Transit Authority (WATA)

7239 Pocahontas Trail - Williamsburg, Virginia 23185

Contact: Hank Lewis; Tel: 757.220.6746; Email: hlewis@gowata.org

Customer Video Testimonials are available at:

<https://www.apollovideotechnology.com/company/testimonials/>



d. Technical Proposal

Requirement	Apollo Video Technology's Response
Summary Scope of Work	
<p>ESTA currently operates 36 fixed route buses and 20 paratransit vehicles. This RFPQ is for up to 14 vehicle camera systems for fixed route buses (one to be installed by vehicle manufacturer in 2019 Freightliner). There is one camera system already purchased that needs to be installed making the total installations fifteen. The quote must include equipment, training, and installation. Existing video is presently Downloaded by physically exchanging hard drives and downloading at a docking station attached to a PC.</p>	<p>✓ Acknowledged / full compliant.</p>
<p>ESTA requires 1080 quality recording on 6 cameras for a minimum of 30 days on each bus. The awarded camera system is required to be a full HD IP based system per industry standard. The HD quality video must have the option to downgrade to standard definition quality to maximize the use of available hard disk space and HD storage. For future system integration and replacements, cameras should be capable of live streaming and sharing the data package with other programs such as Intelligent Transportation Systems.</p>	<p>✓ Exceeds. The system proposed supports cameras with resolution to up 4K (3840x2160). All cameras proposed are full HD resolution (1080p). Please refer to the Price Proposal for upgrade options.</p>
<p>We require a minimum of 2 years warranty and maintenance and will consider pricing on warranty and maintenance up to 5 years. Quotes must include all expenses required for successful implementation, including but not limited to: training, travel, shipping, specialty tools (i.e. CAT6/RJ45 crimper and cable splicer), hardware (including cables, connectors, etc.), and software.</p>	<p>✓ Fully compliant. The system includes a standard 2-year warranty for all equipment. This is a "return to manufacturer" type warranty whereby the Authority is responsible for the on-site labor required for removal and reinstallation. Please refer to the Price Proposal for optional bi-annual or annual system maintenance.</p>
<p>Further, we expect full training on use of all software to include but not be limited to: scheduling downloads, health status, DVR configuration, system configuration and event review.</p>	<p>✓ Fully compliant. Apollo Video has a dedicated trainer that can provide training remotely (base proposal) or optional on-site training.</p>
Project Goals	
<p>Install cameras equipment with 1080p capabilities</p>	<p>✓ Exceeds. The proposed 360 degree cameras feature 5MP resolution (2560x2048). All exterior cameras are 1080p.</p>
<p>6 cameras per bus, 30 days recording preferred</p>	<p>✓ Fully compliant.</p>
<p>Licensing brought into compliance</p>	<p>✓ N/A – all software proposed requires purchase by the Authority, as there is no existing Apollo Video Technology software in place.</p>

Requirement	Apollo Video Technology's Response
Extended maintenance	✓ Fully compliant. Please refer to the Price Proposal for optional extended maintenance services.
Training	✓ Fully compliant.
Deliverables:	
Cameras, DVR and hardware	✓ Fully compliant.
Training for install of hardware	✓ Fully compliant.
Update software (if needed)	✓ Fully compliant.
Training (i.e. webinars, training videos, function of maintenance and support)	✓ Fully compliant.
Scheduling	✓ Fully compliant.
Bring licensing into compliance	✓ N/A – all software proposed requires purchase by the Authority, as there is no existing Apollo Video Technology software in place.
Maintenance contract	✓ Fully compliant.
Warranty	✓ Fully compliant. A 2-year warranty is provided at no additional cost. Please refer to the Price Proposal for extended warranty options.
Camera Vehicle Placement	
ESTA installation will consist of fourteen (14) vehicles ranging in age from 2012-2019. The vehicles are to be equipped with two (2) interior 360-degree cameras, and four (4) exterior cameras. The interior cameras will be mounted one at front door and one midway back of interior. The exterior cameras will be forward facing, left and right-side rear facing, and one rear mounted camera.	✓ Fully compliant with the exception of the "exterior forward-facing". This camera is designed for interior mounting.
Technical Specifications A. Recorder Specifications	
1. The system should have a digital video imaging processor capable of recording video images for up to 6 digital (IP) cameras at real time (30fps) and 1080P resolution.	✓ Exceeds. The proposed 360 degree cameras feature 5MP resolution (2560x2048). All remaining cameras are 1080p.
2. The system should support the ability to individually configure each camera	✓ Fully compliant.
3. For events, the system should be capable of marking and automatically downloading a video clip (such as accelerometer).	✓ Fully compliant.
4. The system should be capable of recording an audio channel synchronized with all IP cameras.	✓ Fully compliant.
5. The system should be tested and found to meet or exceed industry standards for shock and vibration, electromagnetic compatibility, and FCC.	✓ Fully compliant.

Requirement	Apollo Video Technology's Response
6. The system should be powered by a 12 or 24 VDC vehicle power supply and have an operational voltage range from 9 to 32 VDC. It should be self-regulating and internally protected from power surges and spikes.	✓ Exceeds. The RoadRunner 4K Recorder features a wider operational voltage range of 9 to 36VDC.
7. The system shall operate within the following environmental specifications: Operating temperature of -20°C - 55°C and Relative humidity of 10 - 95%.	✓ Exceeds. The RoadRunner 4K Recorder features a wider operational temperature range of (-28.8°C to 54.4°C); and wider operational range of humidity of 0% to 95% Non-Condensing.
8. The system should store images on a lockable and removable hard drive.	✓ Fully compliant.
9. All recorders should be keyed alike.	✓ Fully compliant.
10. Removable hard drive should support SSD and HDD technologies, and include storage options of 2TB, 3TB, and 4TB.	✓ Exceeds. The RoadRunner 4K Recorder supports SSD drives up to 2.0TB; HDD drives up to 10TB.
11. The system should be capable of maintaining one month of recorded video.	✓ Fully compliant.
12. The removable hard drive should connect to a PC through a USB port or docking station.	✓ Fully compliant.
13. The removable hard drive should have shock and vibration dampening built-in.	✓ Fully compliant.
14. The system should have an accessible and dedicated service gigabit Ethernet port	✓ Fully compliant.
15. The system should provide user-configurable digital inputs (including brakes and turn signals), user-configurable analog inputs, user-configurable relay outputs that can be used to trigger events and alarms, and analog video outputs.	✓ Fully compliant with the exception of "Analog Video Outputs" – the Recorder features an HDMI monitor output.
16. The system should incorporate a 3-axis accelerometer capable of triggering configurable alarm events.	✓ Fully compliant.
17. The system should include a driver event switch that features a system status.	✓ Fully compliant.
18. The system should display at minimum diagnostics information such as power and recording.	✓ Fully compliant.
19. The system should employ a browser-based interface for full system configuration of all parameters.	✓ Not fully compliant. RsM Software is utilized for configuration of system parameters. This software is client-based (as opposed to browser-based).
20. The system should utilize configuration files to expedite the programming of the system and camera settings.	✓ Fully compliant.
21. The system should have firmware that can be upgraded.	✓ Fully compliant.

Requirement	Apollo Video Technology's Response
<p>22. The system should be capable of recording in high definition and then downgrading the video after a configurable amount of time to maximize the length of storage (days) of recorded video.</p>	<p>✓ Exceeds. The RoadRunner 4K system simultaneously records two (2) video streams that are fully configurable by resolution, recording rate and quality for each camera. This allows the system to record the highest quality and frame rate for critical events, while simultaneously recording an additional stream at lower settings to supply long-term video recording.</p>
<p>23. The system should be capable of recording for a period of time after the ignition is turned off.</p>	<p>✓ Fully compliant. The system supports a delay-off feature that is adjustable in one-minute increments for up to 24 hours. Additionally, the system features a low-power mode, whereby the system will efficiently power the Recorder and wireless device to support video downloads without cameras operational.</p>
<p>Technical Specifications B. Cameras</p>	
<p>1. All cameras should be high definition. Please describe camera capabilities.</p>	<p>✓ Fully compliant. All cameras proposed are 1080P or 5MP, power over Ethernet and feature plug and play capabilities.</p>
<p>2. All cameras should support bit rate settings between 64Kbps - 6Mbps</p>	<p>✓ Fully compliant.</p>
<p>3. All cameras should be capable of being powered by power over ethernet.</p>	<p>✓ Fully compliant.</p>
<p>4. All cameras should support an analog video output for use analog devices such as monitors.</p>	<p>✓ Not fully compliant. The Recorder features an HDMI output for connection to a monitor.</p>
<p>5. All cameras should have image adjustment settings for: saturation, brightness, contrast, sharpness, exposure, and picture orientation (rotate, mirror).</p>	<p>✓ Not fully compliant. Software Image Processing includes controls for brightness, blur and sharpness of playback images. Settings for picture orientation (rotate, mirror) are model-dependent.</p>
<p>6. All cameras should be day/night viewable.</p>	<p>✓ Fully compliant.</p>
<p>7. All cameras should have infrared capabilities.</p>	<p>✓ Not fully compliant. The cameras proposed do not feature infrared capabilities, however, the exterior cameras feature low-light recording to 0.15 lux; interior cameras to 0.08 lux (in color mode).</p>

Requirement	Apollo Video Technology's Response
8. All cameras or mounts should have 3-axis adjustment for positioning the field of view.	✓ Fully compliant with the exception of interior cameras – this specification is not applicable to 360-degree cameras.
9. All cameras should compensate for changing lighting conditions.	✓ Fully compliant.
10. All cameras should have compliance to the following standards: FCC, CE, UL, and RoHS	✓ Fully compliant.
11. Internal cameras should have a built-in microphone.	✓ Not fully compliant. 360-degree cameras do not feature built-in audio recording. Please refer to the Price Proposal for an external microphone.
12. Internal cameras should have environmental ratings of IP66 and IK-7.	✓ Fully compliant.
13. External cameras should be impact and tamper resistant, featuring a UV coated dome with replaceable glass lens.	✓ Fully compliant.
Technical Specifications C. System Connectivity	
1. The system should connect to the bus to receive information such as brake, turn signal, and accelerator etc.	✓ Fully compliant.
2. The system should have a built-in GPS receiver. GPS should track vehicle location synchronized with the video. Option to synchronize its time with GPS.	✓ Fully compliant.
3. Should have cellular connectivity. Describe how system connects to cellular and capabilities to route to other devices and systems in the bus.	✓ Fully compliant. The RoadRunner system is wireless and cellular ready. Our proposal includes the RoadRunner WC340 Wireless Mobile Router. This router features an LTE-Advanced Cellular Modem, 802.11AC (WAVE2) Wi-Fi for LAN and WWAN Networks. Providing provides easy viewing access, live video streaming, access for searching and downloading recorded video by facilities and first responders.
4. The system should be capable of sharing cellular connectivity with other onboard systems, such as Intelligent Transportation Systems.	✓ Fully compliant. The RoadRunner system is compatible with any TCP/IP based network and can connect to existing cellular devices.
SUPPORT/HARDWARE	
1. Software that is capable of live viewing, playback, calendar and event searches, and administration should be provided, and shall be compatible with Windows 10 and have unlimited licenses.	✓ Fully compliant.

Requirement	Apollo Video Technology's Response
2. All future software updates should be included in the Quote.	✓ Not compliant. mSET Software includes 3-years of software updates, optional 1-year extensions are outlined in the Price Proposal. License-free and included RsM Software exceeds the requirements, with lifetime updates included at no additional charge.
3. The software should provide various levels of user access rights that allow restricted access to various functions.	✓ Fully compliant.
4. When equipped with GPS, the system software should be capable of connecting to pre-recorded video by selecting a point on the map or selecting a point on the speed chart to view from that speed or location.	✓ Fully compliant.
5. To retrieve recorded video, the software should provide searches by: event, time lapse, time and date, vehicle location and vehicles speed. Software should allow for fleet-wide searches and wireless download of video based solely upon the date and a general map location.	✓ Fully compliant.
6. The software should display the current time and date on the video.	✓ Fully compliant.
7. The software should display bus activity on the video such as: brakes, left turn signal, right turn signal, reverse etc.	✓ Fully compliant.
8. The system should include software with advanced capabilities for user scheduled automatic download of video clips.	✓ Fully compliant.
9. The software should be capable of synchronizing the time of all recorders to GPS time including daylight savings.	✓ Fully compliant.
10. Software settings should allow the system to send notification for system events including video loss, camera obstruction, inoperable camera, etc.	✓ Fully compliant.
11. Options for archiving/retrieving video should include: Saving a video clip as a Windows Media Player (.avi) file, saving as an image (.bmp), or saving video as a self-executable format (.exe).	✓ Fully compliant.
12. Video clips saved using the self-executable format (.exe) should be able to be watermarked, encrypted and should be viewed without the use of any software, providing the ability to easily transfer secure video evidence.	✓ Fully compliant.
13. Video clips should include the option of viewing a single camera or any combination of cameras up to and including all cameras on a single screen.	✓ Fully compliant.

Requirement	Apollo Video Technology's Response
14. Executable video clips should display GPS map location vehicle and speed upon playback and metadata from other onboard systems.	✓ Fully compliant.
15. Video clips should provide the option of saving a portion of the video clip (shorter in length and/or reducing the number of cameras) in order to make a smaller video clip from the original.	✓ Fully compliant.
16. The software should feature the option to archive video clips requiring a password for reviewing.	✓ Fully compliant.
SOFTWARE & SERVER LICENSE	
1. Management software should be capable of providing fleet-wide status reports, event logs, on-demand and automated video clip retrieval for easy fleet-wide video management.	✓ Fully compliant.
2. Management software should provide access to an unlimited number of users and feature multiple user access-levels with password protection to ensure system settings are secure.	✓ Fully compliant.
3. Software may include both client-based and web-based user interface options or combination.	✓ Fully compliant.
4. Users should be capable of programming the software to automatically download video clips based on specific event types.	✓ Fully compliant.
5. All data logs and video clips should be available for viewing anytime (regardless of current connection status) once the video clips have been uploaded.	✓ Fully compliant.
6. Users should be capable of requesting download of custom video clips.	✓ Fully compliant.
7. Users should be able to view vehicle connection status and system logs	✓ Fully compliant.
8. Software should allow for email notification of system events.	✓ Fully compliant.
9. Software should supply health information of the video system with error logs, reports and automatic notification for: video blind events, video loss events, disk errors, disk temperature events, fan a. errors, recorder errors, disk almost full and disk S.M.A.R.T (Self-monitoring, analysis and reporting technology) events.	✓ Fully compliant.
10. Users should be capable of downloading video clips on-demand, for viewing those not scheduled for automatic download	✓ Fully compliant.
11. Video clips scheduled or manually requested should automatically download when the vehicle connects to the network.	✓ Fully compliant.
12. Software should provide connection status to easily determine if a vehicle has not recently connected to the network.	✓ Fully compliant.
13. The user should be capable of requesting multiple video clips simultaneously from multiple sites.	✓ Fully compliant.

Requirement	Apollo Video Technology's Response
14. Software should provide chain of custody reports with each video clip.	✓ Fully compliant.
15. Users with granted permission rights should be able to classify reviewed video clips to save or schedule for deletion.	✓ Fully compliant.
16. Administrative users should be able to program the software with an adjustable time period for storing logs and clips.	✓ Fully compliant.
17. Management software should be compatible with all Recorder systems proposed.	✓ Fully compliant.
18. Software should provide customizable categories that will allow users to classify video clips.	✓ Fully compliant. This option requires the optional Operator Performance module. Please refer to the Price Proposal for options.
19. Software should support sorting of video clips based upon classification status.	✓ Fully compliant. This option requires the optional Operator Performance module. Please refer to the Price Proposal for options.
20. Users should be capable of inserting and saving notes or comments regarding a specific video clip to document essential data regarding a clip.	✓ Fully compliant. This option requires the optional Operator Performance module. Please refer to the Price Proposal for options.
21. Users should be able to request clips by location for upload of all vehicles in proximity of a defined section on a map.	✓ Fully compliant.
WARRANTY, SERVICE, & SUPPORT	
1. All hardware should include a minimum warranty of two (2) years parts and labor.	✓ Fully compliant.
2. Unlimited telephone and email technical support shall be provided at no additional charge for the life of the system.	✓ Fully compliant.
3. Additional extended warranty and support options shall be available. ESTA would like extended warranty options for up to five (5) years of coverage.	✓ Fully compliant. Please refer to the Price Proposal for extended warranty options.

Qty	Model	Description	Unit Price	Ext Price
Base Proposal				
14	RR-HDR4K08-2000	RoadRunner 4K Resolution 8 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Hard Disk Drive		
14	RR-HDEH	RoadRunner HD Environmental Protective Heater		
14	RR-HDCTDF100	RoadRunner HD Camera - Fixed Forward-Facing Dome		
28	RR-HDCTDIRA100	RoadRunner HD Camera - Vandal Resistant, IP Addressable, High Definition Tapered Color Dome w/ IR Illumination & Audio		
28	RR-HDCTDIRA115	RoadRunner HD Camera - Vandal Resistant, IP Addressable, High Definition Tapered Color Dome w/ IR Illumination & Audio		
14	RR-HDCW1-TG	RoadRunner HD Camera - Vandal Resistant, Exterior High Definition IP Addressable, High Definition Varifocal Color Wedge, Tempered Glass Viewing Window; Orientation Options: Curbside: RR-HDCW1-TG-CS Street side: RR-HDCW1-TG-SS	\$4,236	\$59,304
84	RR-ICC/ICCA	RoadRunner HD Interface Camera Cables, Video, Power & Audio (Specify in ft: 10, 15, 20, 25, 35, 45, 55, 65, 75)		
14	RR-HDAGPS	RoadRunner HD Antenna, GPS (Utilizes internal receiver)		
14	RR-HDM2i	RoadRunner HD Surface Mount Microphone with Gain Control (NOTE: Cable to be ordered separately)		
14	009-0138-020	Cable, Microphone, RR-HD, 20 feet		
14	-	Installation of Above-Listed Equipment - <i>Unscheduled downtime or wait time, such as lack of bus availability will be billed at a rate of \$90 per hour.</i>	\$836	\$11,704
1	-	Installation Deployment Fee	\$1,300	\$1,300
-	-	License-Free RsM (RoadRunner Secure Management) Software	Included	Included
-	-	Unlimited Remote Technical Support (phone & email) for Life of Equipment	Included	Included
-	-	Standard Warranty - 2 Years (All Equipment)	Included	Included
1	-	Training - Remote Webinar Training	\$750	\$750
1	RR-HDHDA	RoadRunner HD Drive Adapter	\$115	\$115
		Subtotal:		\$73,173
Option: Cellular Router for Wireless Capabilities				
14	RR-HDWC340	LTE-Advanced Mobile Cellular Router with LTE/MIMO/WiFi Antenna, 802.11ac(WAVE2) NOTE: SIM card and monthly service is not included and must be arranged through a local provider	\$1,032	\$14,448
14	RR-XCFGC	Wireless Cellular Configuration (Cost is per unit configured)	\$49	\$686
		Subtotal:		\$15,134
Additional Preventative Maintenance:				
Preventative Maintenance programs offer an extensive check of all Apollo equipment to identify and diagnose potential problem areas.				
Service Includes:				
<ul style="list-style-type: none"> • 106-point inspection of all Apollo equipment • Identification of product issue/malfunction • Service report and recommended work for each vehicle <i>Labor for replacement / repair is additional; parts are not included</i>				
1	AVT-XPM1	Preventative Maintenance Check, <50 Vehicles	\$7,650	\$7,650
Option: Extended Warranty				
14	RR-XW3	Extended Warranty - Year 3 (All Equipment Excluding Removable Drives)	\$195	\$2,730
14	RR-XW4	Extended Warranty - Year 4 (All Equipment Excluding Removable Drives)	\$195	\$2,730
14	RR-XW5	Extended Warranty - Year 5 (All Equipment Excluding Removable Drives)	\$195	\$2,730
Option: mSET Software				
1	mSET	mSET Base Software* Single-Server License w/ Custom Clip Request Utility for Unlimited Vehicles	\$4,588	\$4,589
1	mSET-H	mSET Software, Health Single-Server License*	\$4,588	\$4,589
14	mSET-H-L	mSET Software, Health Single-Vehicle License	\$228	\$3,192
1	mSET-L	mSET Software, Location Single-Server License*	\$4,588	\$4,589
14	mSET-L-L	mSET Software, Location Single-Vehicle License	\$228	\$3,192
1	mSET-SC	mSET Software, SmartClip Single-Server License*	\$4,588	\$4,589
14	mSET-SC-L	mSET Software, SmartClip Single-Vehicle License	\$228	\$3,192
		Subtotal:		\$27,932
Option: Required to comply with item 18, 19 and 20 of "SOFTWARE & SERVER LICENSE"				
1	mSET-OP	mSET Software, Operator Performance Single-Server License*	\$ 4,588	\$4,589
14	mSET-OP-L	mSET Software, Operator Performance Single-Vehicle License	\$ 228	\$3,192
		Subtotal:		\$7,781
Option: On-Site Training				
1	AVT-XS	Standard On-Site Support Visit - up to 1 full day (8 hours) on-site Travel expenses are included for the United States and Canada only.	\$ 2,000	\$2,000
Option: On-Site Set-Up of mSET Software				
1	AVT-XSN	Software / Networking On-Site Support Visit - up to 2 full days (16 hours) on-site Travel expenses are included for the United States and Canada only.	\$ 4,500	\$4,500

Freight charges are included at no additional charge for the initial bid purchase.

All vehicle installation charges quoted assumes typical field camera placement with minimal structural vehicle modifications required. Removal of, or modifications of non-serviceable vehicle components may incur additional charge

Features, Pricing and Specifications are Subject to Change without Notice. All Prices are in US Dollars.

Transit and Rail Applications - 2018 Price List

Model	Description	Unit Price
RoadRunner 4K™ Ultra High Definition Mobile Recorders		
RR-HDR4K16-10000	RoadRunner 4K Resolution 16 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 10.0TB Hard Disk Drive	\$ 6,324
RR-HDR4K16-8000	RoadRunner 4K Resolution 16 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 8.0TB Hard Disk Drive	\$ 6,153
RR-HDR4K16-6000	RoadRunner 4K Resolution 16 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 6.0TB Hard Disk Drive	\$ 5,982
RR-HDR4K16-4000	RoadRunner 4K Resolution 16 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 4.0TB Hard Disk Drive	\$ 5,810
RR-HDR4K16-2000	RoadRunner 4K Resolution 16 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Hard Disk Drive	\$ 5,639
RR-HDR4K16-1000	RoadRunner 4K Resolution 16 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Hard Disk Drive	\$ 5,553
RR-HDR4K16-2000S	RoadRunner 4K Resolution 16 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Solid-State Drive	\$ 6,690
RR-HDR4K16-1000S	RoadRunner 4K Resolution 16 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Solid-State Drive	\$ 6,422
RR-HDR4K12-10000	RoadRunner 4K Resolution 12 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 10.0TB Hard Disk Drive	\$ 5,339
RR-HDR4K12-8000	RoadRunner 4K Resolution 12 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 8.0TB Hard Disk Drive	\$ 5,168
RR-HDR4K12-6000	RoadRunner 4K Resolution 12 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 6.0TB Hard Disk Drive	\$ 4,996
RR-HDR4K12-4000	RoadRunner 4K Resolution 12 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 4.0TB Hard Disk Drive	\$ 4,825
RR-HDR4K12-2000	RoadRunner 4K Resolution 12 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Hard Disk Drive	\$ 4,653
RR-HDR4K12-1000	RoadRunner 4K Resolution 12 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Hard Disk Drive	\$ 4,568
RR-HDR4K12-2000S	RoadRunner 4K Resolution 12 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Solid-State Drive	\$ 5,705
RR-HDR4K12-1000S	RoadRunner 4K Resolution 12 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Solid-State Drive	\$ 5,437
RR-HDR4K08-10000	RoadRunner 4K Resolution 8 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 10.0TB Hard Disk Drive	\$ 4,800
RR-HDR4K08-8000	RoadRunner 4K Resolution 8 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 8.0TB Hard Disk Drive	\$ 4,628
RR-HDR4K08-6000	RoadRunner 4K Resolution 8 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 6.0TB Hard Disk Drive	\$ 4,457
RR-HDR4K08-4000	RoadRunner 4K Resolution 8 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 4.0TB Hard Disk Drive	\$ 4,286
RR-HDR4K08-2000	RoadRunner 4K Resolution 8 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Hard Disk Drive	\$ 4,114
RR-HDR4K08-1000	RoadRunner 4K Resolution 8 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Hard Disk Drive	\$ 4,028
RR-HDR4K08-2000S	RoadRunner 4K Resolution 8 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Solid-State Drive	\$ 5,165
RR-HDR4K08-1000S	RoadRunner 4K Resolution 8 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Solid-State Drive	\$ 4,898
RR-HDR4K04-10000	RoadRunner 4K Resolution 4 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 10.0TB Hard Disk Drive	\$ 3,732
RR-HDR4K04-8000	RoadRunner 4K Resolution 4 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 8.0TB Hard Disk Drive	\$ 3,561
RR-HDR4K04-6000	RoadRunner 4K Resolution 4 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 6.0TB Hard Disk Drive	\$ 3,390
RR-HDR4K04-4000	RoadRunner 4K Resolution 4 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 4.0TB Hard Disk Drive	\$ 3,218
RR-HDR4K04-2000	RoadRunner 4K Resolution 4 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Hard Disk Drive	\$ 3,047
RR-HDR4K04-1000	RoadRunner 4K Resolution 4 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Hard Disk Drive	\$ 2,961
RR-HDR4K04-2000S	RoadRunner 4K Resolution 4 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Solid-State Drive	\$ 4,098
RR-HDR4K04-1000S	RoadRunner 4K Resolution 4 Camera Mobile Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Solid-State Drive	\$ 3,830

RoadRunner 4K™ Options and Accessories:		
RR-4KCF1	RoadRunner 4K Camera - Forward-Facing Interior Ultra High Definition, Day/Night, Color w/ Adjustable Mount; 70° FOV: Order RR-4KCF170; 100° FOV: Order RR-4KCF1100; 115° FOV: Order RR-4KCF1115;	\$ 818
RR-4KCF2	RoadRunner 4K Camera - Compact Forward-Facing Interior Ultra High Definition, Day/Night, Color 70° FOV: Order RR-4KCF270; 100° FOV: Order RR-4KCF2100; 115° FOV: Order RR-4KCF2115;	\$ 741
RR-HDW4K	Embedded Wi-Fi for RoadRunner 4K Recorder, Includes 3-in-1 Antenna w/ GPS	\$ 305
<i>NOTE: RoadRunner 4K Systems are compatible with all HD cameras and accessories - please refer to the following sections for all options and accessories</i>		
RoadRunner HD High Definition Interior Cameras:		
RR-HDCF1	RoadRunner HD Camera - Forward-Facing Interior High Definition, Day/Night, Color w/ Adjustable Mount	\$ 573
RR-HDCF2	RoadRunner HD Camera - Compact, Forward Facing	\$ 496
RR-HDCTDF100	RoadRunner HD Camera - Fixed Forward-Facing Dome	\$ 397
RR-HDCTDIRA	RoadRunner HD Camera - Vandal Resistant, IP Addressable, High Definition Tapered Color Dome w/ IR Illumination & Audio	\$ 321
RR-HDC360	RoadRunner HD Camera - 360 Degree	\$ 642
RoadRunner HD High Definition Exterior Cameras:		
RR-HDCTD	RoadRunner HD Camera - Vandal Resistant, Exterior, IP Addressable, High Definition Tapered UV-Coated Color Dome	\$ 321
RR-HDCW1	RoadRunner HD Camera - Vandal Resistant, Exterior High Definition IP Addressable, High Definition Varifocal Color Wedge; Orientation Options: Curbside: RR-HDCW1-CS Street side: RR-HDCW1-SS	\$ 336
RR-HDCW1-TG	RoadRunner HD Camera - Vandal Resistant, Exterior High Definition IP Addressable, High Definition Varifocal Color Wedge, Tempered Glass Viewing Window; Orientation Options: Curbside: RR-HDCW1-TG-CS Street side: RR-HDCW1-TG-SS	\$ 363
RR-HDCW1-H	RoadRunner HD Camera - Vandal Resistant, Exterior High Definition IP Addressable, High Definition Varifocal Color Wedge w/ Mount and Heater; Orientation Options: Curbside: RR-HDCW1-CS-H Street side: RR-HDCW1-SS-H	\$ 412
RoadRunner HD Camera Cable Assemblies:		
RR-HDICCA	RoadRunner HD Interface Camera Cables, Video, Power & Audio (Specify in ft: 10, 15, 20, 25, 35, 45, 55, 65, 75)	\$ 27
RoadRunner HD Wireless Cellular:		
RR-WC340	LTE-Advanced Mobile Cellular Router with LTE/MIMO/WiFi Antenna, 802.11ac(WAVE2) NOTE: SIM card and monthly service is not included and must be arranged through a local provider	\$ 1,032
RoadRunner HD Wireless LAN:		
RR-HDWT230	Wireless 802.11ac (Wave 2) Industrial Mobile Router	\$ 588
RoadRunner HD Accessories:		
RR-HDHDA	RoadRunner HD Drive Adapter	\$ 115
RR-HDAGPS	RoadRunner HD Antenna, GPS (Utilizes internal receiver)	\$ 76
RR-HDVA1	RoadRunner HD 3 Axis Accelerometer (External)	\$ 252
RR-HDVE8	RoadRunner HD Video Encoder, 8 Camera Support	\$ 611
RR-HDVE4	RoadRunner HD Video Encoder, 4 Camera Support	\$ 382
RR-HDUPS-S	RoadRunner HD Uninterruptible Power Supply with SuperCap Technology	\$ 611
RR-HDUPS-B	RoadRunner HD Uninterruptible Power Supply, Battery	\$ 688
RR-HDPLDP	RoadRunner HD Power Loss Data Protector	\$ 382
RR-HDPSRA	RoadRunner HD Power Supply, for Rail Applications	\$ 764
RR-HDVCS	RoadRunner HD Vandal-Resistant Recorder Cover & Cable Guard Set	\$ 99
RR-HDEH	RoadRunner HD Environmental Protective Heater	\$ 76
RR-HDODC	RoadRunner HD Onboard Display Controller	\$ 458
RR-HDDLCD70	RoadRunner HD System Display, 7" LCD Display Monitor w/ Controller NOTE: HDMI Cable sold separately, 10': 009-0263-010, 20': 009-0263-020, 25': 009-0263-025	\$ 644
RR-HDDLCD80	RoadRunner HD System Display, 8" LCD Display Monitor w/ Controller NOTE: HDMI Cable sold separately, 10': 009-0263-010, 20': 009-0263-020, 25': 009-0263-025	\$ 917
RR-HDDLCD100	RoadRunner HD System Display, 10" LCD Display Monitor w/ Controller NOTE: HDMI Cable sold separately, 10': 009-0263-010, 20': 009-0263-020, 25': 009-0263-025	\$ 955
RR-HDDLCD150	RoadRunner HD System Display, 15" LCD Display Monitor w/ Controller NOTE: HDMI Cable sold separately, 10': 009-0263-010, 20': 009-0263-020, 25': 009-0263-025	\$ 1,108
RR-HDDLCDP1	HD Display, 17" Color On-Board Smart Monitor with Ruggedized Mount NOTE: HDMI Cable sold separately, 10': 009-0263-010, 20': 009-0263-020, 25': 009-0263-025	\$ 1,147
RR-DMS	Display Mount, Adjustable, Small (Compatible with 8" Monitor)	\$ 91
RR-DML	Display Mount, Adjustable, Large (Compatible with 10 and 15" Monitor)	\$ 213
RR-HDM2i	RoadRunner HD Surface Mount Microphone with Gain Control (NOTE: Cable to be ordered separately)	\$ 152
AVT-NIIU	Network Intelligent Interface Unit	\$ 390
RoadRunner HD Spare / Replacement Drives:		
RR-HDD10000	RoadRunner HD Removable Hard Disk Drive, 10.0TB	\$ 1,164
RR-HDD8000	RoadRunner HD Removable Hard Disk Drive, 8.0TB	\$ 992
RR-HDD6000	RoadRunner HD Removable Hard Disk Drive, 6.0TB	\$ 821
RR-HDD4000	RoadRunner HD Removable Hard Disk Drive, 4.0TB	\$ 649
RR-HDD2000	RoadRunner HD Removable Hard Disk Drive, 2.0TB	\$ 478
RR-HDD1000	RoadRunner HD Removable Hard Disk Drive, 1.0TB	\$ 392
RR-HDD2000S	RoadRunner HD Removable Solid-State Drive, 2.0TB	\$ 1,529
RR-HDD1000S	RoadRunner HD Removable Solid-State Drive, 1.0TB	\$ 1,261

High Capacity RoadRunner Series Digital Video Recorders			
RR-MRH16-6000	RoadRunner 16 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 6.0TB Hard Disk		\$ 5,002
RR-MRH16-4000	RoadRunner 16 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 4.0TB Hard Disk		\$ 4,830
RR-MRH16-2000	RoadRunner 16 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Hard Disk		\$ 4,659
RR-MRH16-1000	RoadRunner 16 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Hard Disk		\$ 4,573
RR-MRH16-2000S	RoadRunner 16 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Solid-State Drive		\$ 5,710
RR-MRH16-1000S	RoadRunner 16 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Solid-State Drive		\$ 5,442
RR-MRH12-6000	RoadRunner 12 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 6.0TB Hard Disk		\$ 4,016
RR-MRH12-4000	RoadRunner 12 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 4.0TB Hard Disk		\$ 3,845
RR-MRH12-2000	RoadRunner 12 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Hard Disk		\$ 3,674
RR-MRH12-1000	RoadRunner 12 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Hard Disk		\$ 3,588
RR-MRH12-2000S	RoadRunner 12 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Solid-State Drive		\$ 4,725
RR-MRH12-1000S	RoadRunner 12 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Solid-State Drive		\$ 4,457

Software Upgrade Option for up Recording up to 16 Cameras (Requires RR-MRH12 Series DVR):

RR-MRH12-U2	Upgrade MRH12 to 14 Camera Capability (Software License for 2 Additional Cameras)		\$ 493
RR-MRH12-U4	Upgrade MRH12 to 16 Camera Capability (Software License for 4 Additional Cameras)		\$ 985
RR-MRH8-6000	RoadRunner 8 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 6.0TB Hard Disk		\$ 3,477
RR-MRH8-4000	RoadRunner 8 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 4.0TB Hard Disk		\$ 3,306
RR-MRH8-2000	RoadRunner 8 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Hard Disk		\$ 3,134
RR-MRH8-1000	RoadRunner 8 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Hard Disk		\$ 3,049
RR-MRH8-2000S	RoadRunner 8 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Solid-State Drive		\$ 4,185
RR-MRH8-1000S	RoadRunner 8 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Solid-State Drive		\$ 3,918
RR-MRH4-6000	RoadRunner 4 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 6.0TB Hard Disk		\$ 2,410
RR-MRH4-4000	RoadRunner 4 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 4.0TB Hard Disk		\$ 2,238
RR-MRH4-2000	RoadRunner 4 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Hard Disk		\$ 2,067
RR-MRH4-1000	RoadRunner 4 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Hard Disk		\$ 1,981
RR-MRH4-2000S	RoadRunner 4 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 2.0TB Solid-State Drive		\$ 3,118
RR-MRH4-1000S	RoadRunner 4 Camera Mobile Digital Video Recorder, RsM™ Software, Power Cable, Event Switch, Removable 1.0TB Solid-State Drive		\$ 2,850

Cameras:			
RR-CF1	Camera, Forward-Facing Color Interior High Resolution, Day/Night, Varifocal Lens Camera w/ Adjustable Mount		\$ 496
RR-CTDF100	Camera, Fixed Forward-Facing Dome		\$ 317
RR-CTM	Camera, Color Vandal Resistant, Exterior, High Resolution, Miniature Tapered UV Coated Dome, 2.9mm; Orientation Options: Ceiling: RR-CTM-C; Side: RR-CTM-S		\$ 195
RR-CTMIRA	Camera, Color Vandal Resistant Interior High Resolution, Day/Night Mini Tapered Dome w/ IR Illumination & Audio Recording; Lens Options: 2.5mm: RR-CTMIRA25 3.6mm: RR-CTMIRA36		\$ 229
RR-CT	Camera, Color Vandal Resistant Exterior, High Resolution, Tapered UV Coated Dome; Lens Options: 2.9mm: RR-CT29 3.6mm: RR-CT36		\$ 241
RR-CTIR	Camera, Color Vandal Resistant Interior/Exterior, High Resolution, Day/Night Tapered Dome w/ IR Illumination; Lens Options: 2.5mm: RR-CTIR25 3.6mm: RR-CTIR36		\$ 241
RR-CTIRA	Camera, Color Vandal Resistant Interior High Resolution, Day/Night Tapered Dome w/ IR Illumination & Audio Recording; Lens Options: 2.5mm: RR-CTIRA25 3.6mm: RR-CTIRA36		\$ 275
RR-CW1	Camera, Color Vandal Resistant High Resolution Interior/Exterior Wedge (Previously RR-CT-540); Orientation Options: Curbside: RR-CW1-CS Street side: RR-CW1-SS Front view: RR-CW1-FV		\$ 291
RR-CW1-TG	Camera, Color Vandal Resistant High Resolution Interior/Exterior Wedge with Tempered Glass Lens; Orientation Options: Curbside: RR-CW1-TG-CS Street side: RR-CW1-TG-SS Front view: RR-CW1-TG-FV		\$ 317
RR-CW1-H	Camera, Color Vandal Resistant High Resolution Interior/Exterior Wedge w/ Mount and Heater; Orientation Options: Curbside: RR-CW1-CS-H Street side: RR-CW1-SS-H		\$ 367
RR-CIR2	Camera, Color IR Illumination Day/Night High Resolution with Audio Recording; Lens Options: 2.5mm: RR-CIR225 3.6mm: RR-CIR236 6.0mm: RR-CIR260 8.0mm: RR-CIR280 12mm lens: RR-CIR212		\$ 164
RR-C2	Camera, Color High Resolution with Audio Recording; Lens Options: 2.5mm: RR-C225 3.6mm: RR-C236 6.0mm: RR-C260 8.0mm: RR-C280 12mm: RR-C212		\$ 164

Camera Cable Assemblies:			
RR-ICC	Camera Cable Assembly, Video & Power Length Options: 10' - 90': RR-ICC10 - RR-ICC90		\$ 27
RR-ICCA	Camera Cable Assembly, Video, Power & Audio Length Options: 10' - 90': RR-ICCA10 - RR-ICCA90		\$ 27

Camera Enclosures and Mounts:

RR-CEIR	Camera Enclosure, Vandal-Resistant Enclosure for RR-CIR2 Series Cameras		\$ 24
RR-CMIRV7	Camera Mount, 7" Vandal-Resistant Mount for RR-CIR2 / RR-C2 Series Cameras		\$ 38
RR-CMIRS3	Camera Mount, 3" Swivel Mount for RR-C2 Series Cameras		\$ 34
RR-CMIRS6	Camera Mount, 6" Swivel Mount for RR-C2 Series Cameras		\$ 38

Wireless Cellular:

NOTE: Please refer to "Service and Support" pricing for wireless configuration services

RR-WC320	Mobile Cellular Router with LTE/MIMO/WiFi Antenna, (For AT&T order RR-WC320-A; for Verizon order RR-WC320-V; for Sprint order RR-WC320-S) NOTE: SIM card and monthly service is not included & must be arranged through a local provider	\$ 903
RR-WC330	Mobile Cellular Router with LTE/MIMO/WiFi Antenna, 802.11ac (For AT&T order RR-WC330A; for Verizon order RR-WC330-V; for Sprint order RR-WC330S) ; NOTE: SIM card & monthly service is not included & must be arranged through a local provider	\$ 1,032

Wireless LAN:

NOTE: Please refer to "Service and Support" pricing for wireless configuration services

RR-WT230	Wireless 802.11ac (Wave 2) Industrial Mobile Router	\$ 588
RR-WT222	Wireless 802.11a/b/g/n Industrial Mobile Access Point/Client/Bridge/Repeater	\$ 474
RR-WT221	Wireless 802.11a/b/g/n Industrial Mobile Access Point w/ Rubber Duck Antenna	\$ 397
RR-A220A	Dual-Band Ruggedized Antenna, Single Input; for 5' cables, order RR-A220A1; for 20' cables, order RR-A220A2	\$ 114
RR-A220B	Dual-Band Ruggedized MIMO Antenna, Dual Input; for 5' cables, order RR-A220B1; for 20' cables, order RR-A220B2	\$ 213
RR-WT210	Wireless LAN Industrial Access Point, Bridge & Exterior Antenna	\$ 397
RR-WT210-DUO	Wireless LAN Industrial A/P Dual Addition	\$ 420
RR-WR210B	Wireless LAN Industrial Access Point & Magnetic Mount Antenna, Vehicle Power Plug	\$ 405

NOTE: Pricing for wireless configuration services is included in the "Service and Support" pricing

Accessories:

RR-GPS	GPS Kit: GPS Receiver & iSM (Interactive Speed & Mapping) Interface	\$ 142
RR-MRHHDA	Hard Disk Adapter, for RoadRunner MRH Series DVR	\$ 115
RR-EHMRH	Environmental Protective Heater for MRH Series DVR	\$ 76
RR-ENV	Environmental Protective Enclosure	\$ 298
AVT-NiiU	niiu (Network Intelligent Interface Unit)	\$ 390
RR-VA1	3 Axis Accelerometer	\$ 252
RR-UPS-S	Uninterruptable Power Supply with SuperCap Technology	\$ 611
RR-UPS-B	Uninterruptable Power Supply, Battery	\$ 688
RR-S2C	2 Camera Video Switcher (Provides 2 Additional Switching Camera Inputs)	\$ 152
RR-M2i	Surface Mount Microphone with Gain Control, Cabling	\$ 152
RR-PSRA	Power Supply, for Rail Applications	\$ 764
RR-ODC	RoadRunner System Onboard Display Controller	\$ 458
RR-DLCDP1	Display, 17" Color On-Board Progressive Scan Monitor with Ruggedized Mount NOTE: Cable sold separately: 099-0035-0**: **indicates length 5' to 70' - in 5' increments	\$ 841
RR-DLCD70	Display (7" LCD Display, Cabling and Mounts) NOTE: Cable sold separately: 099-0035-0**: **indicates length 5' to 70' - in 5' increments	\$ 343
RR-DMPLCD	Display Package (7" LCD Display, Mouse, Cabling & Mounts) NOTE: Cable sold separately: 099-0035-0**: **indicates length 5' to 70' - in 5' increments	\$ 420
RR-DBPLCD	Backup Display Package (7" LCD, RR-CTM29-C, Cabling & Mount) NOTE: Cable sold separately: 099-0035-0**: **indicates length 5' to 70' - in 5' increments	\$ 573
RR-DLCD80	RoadRunner Display, 8" LCD Display Monitor NOTE: Cable sold separately: 099-0035-0**: **indicates length 5' to 70' - in 5' increments	\$ 458
RR-DLCD100	RoadRunner Display, 10" LCD Display Monitor NOTE: Cable sold separately: 099-0035-0**: **indicates length 5' to 70' - in 5'	\$ 496
RR-DCLD150	RoadRunner Display, 15" LCD Display Monitor NOTE: Cable sold separately: 099-0035-0**: **indicates length 5' to 70' - in 5'	\$ 649
RR-DMS	Display Mount, Adjustable, Small (Compatible with 8" Monitor)	\$ 91
RR-DML	Display Mount, Adjustable, Large (Compatible with 10 and 15" Monitor)	\$ 213

RoadRunner MRH Additional / Replacement Storage:

RR-MRH6000HD	Removable Hard Disk Drive for RoadRunner Digital Video Recorder (DVR), 6.0TB	\$ 821
RR-MRH4000HD	Removable Hard Disk Drive for RoadRunner Digital Video Recorder (DVR), 4.0TB	\$ 649
RR-MRH2000HD	Removable Hard Disk Drive for RoadRunner Digital Video Recorder (DVR), 2.0TB	\$ 478
RR-MRH1000HD	Removable Hard Disk Drive for RoadRunner Digital Video Recorder (DVR), 1.0TB	\$ 392
RR-MRH2000SD	Removable Solid-State Drive RoadRunner Digital Video Recorder (DVR), 2.0TB	\$ 1,529
RR-MRH1000SD	Removable Solid-State Drive RoadRunner Digital Video Recorder (DVR), 1.0TB	\$ 1,261

mSET (Managing Safety and Efficiency in Transit) :

mSET	mSET Base Software* Single-Server License w/ Custom Clip Request Utility for Unlimited Vehicles	\$ 4,588
mSET-H	mSET Software, Health Single-Server License*	\$ 4,588
mSET-H-L	mSET Software, Health Single-Vehicle License	\$ 228
mSET-L	mSET Software, Location Single-Server License*	\$ 4,588
mSET-L-L	mSET Software, Location Single-Vehicle License	\$ 228
mSET-SC	mSET Software, SmartClip Single-Server License*	\$ 4,588
mSET-SC-L	mSET Software, SmartClip Single-Vehicle License	\$ 228
mSET-OP	mSET Software, Operator Performance Single-Server License*	\$ 4,588
mSET-OP-L	mSET Software, Operator Performance Single-Vehicle License	\$ 228
mSET-SV	mSET Software, Streaming Video Single-Server License*	\$ 4,588
mSET-SV-L	mSET Software, Streaming Video Single-Vehicle License	\$ 228

mSET (Managing Safety and Efficiency in Transit) Hosted Software Service		
mSET-X-EB-M	mSET Software, Monthly Hosted Essentials Bundle Single-Vehicle Subscription (includes mSET Base, Health and SmartClip): 25GB pooled storage per vehicle, maintenance and updates provided	\$ 25
mSET-X-EB-1	mSET Software, 1-Year Hosted Essentials Bundle Single-Vehicle Subscription (includes mSET Base, Health and SmartClip): 25GB pooled storage per vehicle, maintenance and updates provided	\$ 300
mSET-X-EB-3	mSET Software, 3-Year Hosted Essentials Bundle Single-Vehicle Subscription (includes mSET Base, Health and SmartClip): 25GB pooled storage per vehicle, maintenance and updates provided	\$ 630
mSET-X-EB-5	mSET Software, 5-Year Hosted Essentials Bundle Single-Vehicle Subscription (includes mSET Base, Health and SmartClip): 25GB pooled storage per vehicle, maintenance and updates provided	\$ 975
mSET-X-L-M	mSET Software, Monthly Hosted Location Single-Vehicle Subscription	\$ 10
mSET-X-L-1	mSET Software, 1-Year Hosted Location Single-Vehicle Subscription	\$ 96
mSET-X-L-3	mSET Software, 3-Year Hosted Location Single-Vehicle Subscription	\$ 252
mSET-X-L-5	mSET Software, 5-Year Hosted Location Single-Vehicle Subscription	\$ 390
mSET-X-SV-M	mSET Software, Monthly Hosted Streaming Video Single-Vehicle Subscription	\$ 10
mSET-X-SV-1	mSET Software, 1-Year Hosted Streaming Video Single-Vehicle Subscription	\$ 96
mSET-X-SV-3	mSET Software, 3-Year Hosted Streaming Video Single-Vehicle Subscription	\$ 252
mSET-X-SV-5	mSET Software, 5-Year Hosted Streaming Video Single-Vehicle Subscription	\$ 390
mSET-X-OP-M	mSET Software, Monthly Hosted Operator Performance Single-Vehicle Subscription	\$ 20
mSET-X-OP-1	mSET Software, 1-Year Hosted Operator Performance Single-Vehicle Subscription	\$ 192
mSET-X-OP-3	mSET Software, 3-Year Hosted Operator Performance Single-Vehicle Subscription	\$ 504
mSET-X-OP-5	mSET Software, 5-Year Hosted Operator Performance Single-Vehicle Subscription	\$ 780
Set-up Fees:		
mSET-X-SU	mSET Software, Hosted Setup Fee	\$ 2,498
mSET-X-OP-SU	mSET Software, Operator Performance Driver ID Setup Fee	\$ 2,498
Additional Storage and Bandwidth:		
mSET-X-XST-M	mSET Software, Monthly Hosted Expanded Storage (Additional 25GB per vehicle, must purchase for all vehicles)	\$ 2
mSET-X-XB-M	mSET Software, Monthly Hosted Expanded Bandwidth (Additional 5GB per vehicle, must purchase for all vehicles)	\$ 2
mSET (Managing Safety and Efficiency in Transit) Managed Services - Clip Review Service		
mSET-X-OPR-M	mSET Software, Monthly Managed Services: Operator Performance Video Clip Review Single-Vehicle Subscription	\$ 20
mSET-X-OPR-1	mSET Software, 1-Year Managed Services: Operator Performance Video Clip Review Single-Vehicle Subscription	\$ 192
mSET-X-OPR-3	mSET Software, 3-Year Managed Services: Operator Performance Video Clip Review Single-Vehicle Subscription	\$ 504
mSET-X-OPR-5	mSET Software, 5-Year Managed Services: Operator Performance Video Clip Review Single-Vehicle Subscription	\$ 780
mSET (Managing Safety and Efficiency in Transit) Software Maintenance		
mSET-M-50	mSET Software Maintenance for Fleets of 50 Vehicles or Less, 12 Months (requires purchase for mSET Base and each additional modu	\$ 2,199
mSET-M-100	mSET Software Maintenance for Fleets of 100 Vehicles or Less, 12 Months (requires purchase for mSET Base and each additional mod	\$ 3,634
mSET-M-150	mSET Software Maintenance for Fleets of 150 Vehicles or Less, 12 Months (requires purchase for mSET Base and each additional mod	\$ 5,068
mSET-M-200	mSET Software Maintenance for Fleets of 200 Vehicles or Less, 12 Months (requires purchase for mSET Base and each additional mod	\$ 6,503
mSET-M-300	mSET Software Maintenance for Fleets of 300 Vehicles or Less, 12 Months (requires purchase for mSET Base and each additional mod	\$ 9,371
mSET-M-400	mSET Software Maintenance for Fleets of 400 Vehicles or Less, 12 Months (requires purchase for mSET Base and each additional mod	\$ 12,336
mSET-M-500	mSET Software Maintenance for Fleets of 500 Vehicles or Less, 12 Months (requires purchase for mSET Base and each additional mod	\$ 15,109
mSET-M-750	mSET Software Maintenance for Fleets of 750 Vehicles or Less, 12 Months (requires purchase for mSET Base and each additional mod	\$ 22,281
mSET-M-1000	mSET Software Maintenance for Fleets of 1000 Vehicles or Less, 12 Months (requires purchase for mSET Base and each additional mo	\$ 29,453
mSET-M-1500	mSET Software Maintenance for Fleets of 1500 Vehicles or Less, 12 Months (requires purchase for mSET Base and each additional mo	\$ 43,796
Basic On-Site Support / Training:		
AVT-XS	Standard On-Site Support Visit - up to 1 full day (8 hours) on-site Travel expenses are included for the United States and Canada only.	\$ 2,000
AVT-XS1	Additional day (8 hours) on site, Standard Service	\$ 1,000
Advanced On-Site Support / Training:		
AVT-XSN	Software / Networking On-Site Support Visit - up to 2 full days (16 hours) on-site Travel expenses are included for the United States and Canada only.	\$ 4,500
AVT-XSN1	Additional day (8 hours) on site, Software/Networking Service	\$ 1,500
Wireless Configuration & Services:		
RR-XCFG	Wireless LAN A/P or Bridge Configuration (Cost is per unit configured)	\$ 39
RR-XCFG	Wireless Cellular Configuration (Cost is per unit configured)	\$ 49
RR-XECM1	Enterprise Cloud Management Service for WT230/WC320/WC330 - Hosted by Cradlepoint, 1 Year	\$ 42
RR-XECM3	Enterprise Cloud Management Service for WT230/WC320/WC330 - Hosted by Cradlepoint, 3 Years	\$ 88
RR-XECM5	Enterprise Cloud Management Service for WT230/WC320/WC330 - Hosted by Cradlepoint, 5 Years	\$ 140
Extended Warranty Options: (price is per system, warranties must be purchased consecutively)		
RR-XW3	Extended Warranty - Year 3 (All Equipment Excluding Removable Drives)	\$ 195
RR-XW4	Extended Warranty - Year 4 (All Equipment Excluding Removable Drives)	\$ 195
RR-XW5	Extended Warranty - Year 5 (All Equipment Excluding Removable Drives)	\$ 195

f. Product Brochures and Case Studies

a. Product Brochures

Select the links below to download the electronic file. Hard copies are also available, please email: sales@apollovideo.com to request literature by mail. Additional brochures and technical specifications can be found on our website: www.apollovideotechnology.com

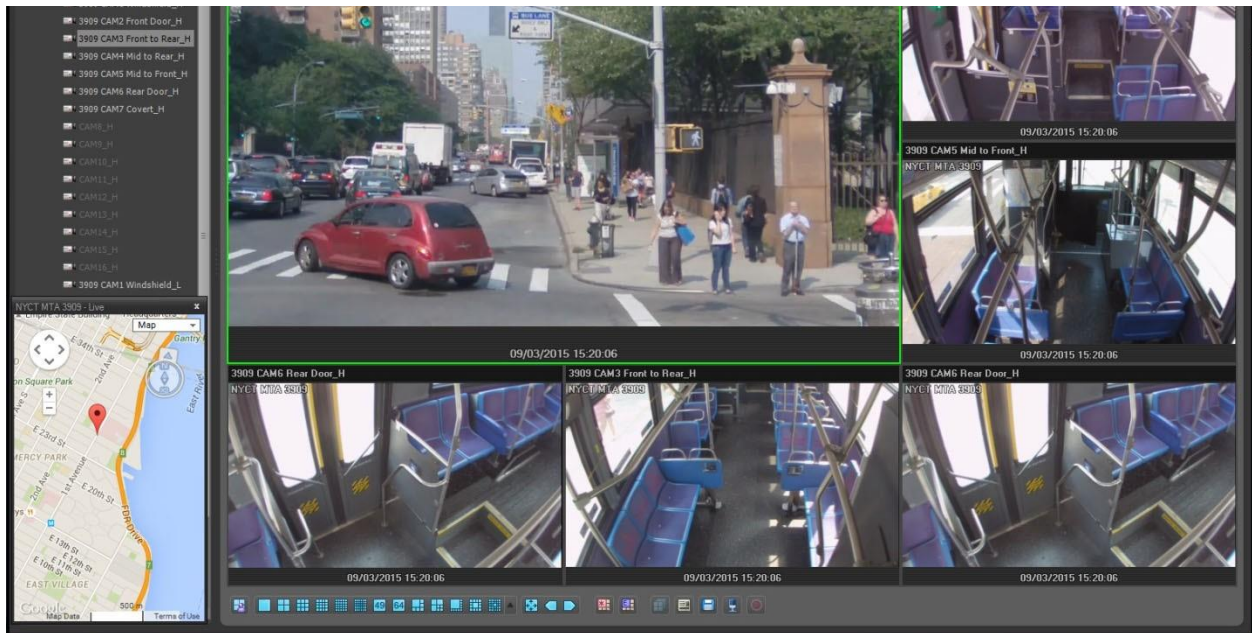
[RoadRunner Mobile Recording Systems](#)

[Interior and Exterior Ruggedized Cameras](#)

[Wireless – WiFi and Cellular Options](#)

[ViM \(Vehicle Information Management\) Software ViM](#)

[Software Demonstration Video](#)



b. **Case Studies**



Mobile Cellular Solution Streamlines Operations and Improves Rider Experience: Video On-Demand and Wi-Fi Capabilities Combine Efforts to Accelerate Investigations

California Transit Authority

Building a Reputation for Safety: High Quality Video Surveillance Enhances Public Safety, Eases Maintenance and Allows for Future Upgrades



A Proactive Approach to Fleet Health Diagnostics: Video Surveillance System Increases Operational Efficiencies

Gardena Transit

802.11ac Delivers Breakthrough Transit Video Performance: Increasing Safety and Security with Fastest Wireless Technologies



Legacy System Optimizes Transit Investment: Transit System Leverages Flexible, Multi-Generational Mobile Video Surveillance Capabilities to Reduce Equipment and Operating Costs



Investing in the Future: Multi-Generational Mobile Video Surveillance Technology Streamlines Training and Reduces Expenses



The Gold Standard for Transit Risk Management: A Proactive Approach to Monitoring Vehicle Health Ensures Reliability of Agency's Video Evidence

Ride On, Montgomery County

Standardizing Transit Surveillance: In the Heart of the Nations' Capital, One Transit Agency Sets a Precedent for Public Transportation Safety and Security



Choosing the Right Technology: A Reputation of Simplicity and Reliability Puts Proven Video Surveillance Management in the Hands of Metro

Michigan City

Five Years and Counting: Transit Agency's Commitment to Hassle-Free and Upgradable Video System Continues to Pay Dividends

Menu

Everett Transit

[Bus Camera Solution Enhances Service](#)

Planning: Everett Transit partners with Apollo Video Technology to address on-time performance

[Cellular Connectivity Improves Transit Incident Investigation:](#) Apollo Video provides immediate access to live video feeds from Jacksonville Transportation Authority's buses and Skyway trains



JACKSONVILLE
TRANSPORTATION
AUTHORITY

[State-of-the-Art Command Center:](#) JTA

partners with Apollo Video Technology to stream real-time digital video to state-of-the-art command center



Menu

Online System
Pricing 10-Year
Camera Warranty
Expert Witness
Surveillance



Testudo Lifetime System Warranty Available

[SD4HD - PDF](#)

Menu

SD4HD Driver Safety | Passenger Security Camera

The SD4HD Driver safety & passenger security vehicle camera system is a video event recorder that can be incorporated as a low cost active driver training device that can help reduce dangerous driving behaviors, reduce fleet driver risk from those dangerous driving behaviors and actively remind the drivers to abide management safe driving parameters like maximum speeds, reduction of hard turns and rapid acceleration or breaking. In-vehicle or onboard mobile surveillance systems for vehicle applications are incorporated to provide verifiable video documentation in the areas of Driver Safety and Transit Passenger Security in case of incident or event.

Driver Behavior recording aspects of the 3-Axis accelerometer, combined with the active driver alerts provide a powerful tool for management to help insure safe driving is both a goal as well as a documentable reality. Problems relating to driver behaviors, driver interactions with passengers, passenger actions or interactions can be documented in a sequential video event digital witness record to dispute false claims of verify reported or suspected problems.

- 10-Year Camera Warranty Standard
- Lifetime System Warranty Available
- Enhanced Video File Evidence Security
- 512 GB Solid Twin SD State Memory Capacity
- Active Driver Safety Training Device with Active Driver Alerts
- Choice of Low Profile or Turret Vandal Cameras at no additional cost

SD4HD Vehicle Camera System Pricing:

SD4HD-1...1 -Camera In-Vehicle Fleet Driver Safety Camera Onboard Security Surveillance CCTV MDVR \$500 - \$650

Menu

SD4HD-2 ...2-Camera In-Vehicle Fleet Driver Safety Camera Onboard Security Surveillance CCTV MDVR \$600 - \$750

SD4HD-3 ...3-Camera Driver Safety Training Device Mobile In Vehicle Video Event Recorder Security Camera \$700 - \$850

SD4HD4 .4-Camera Driver Safety Training Device Mobile In Vehicle Video Event Recorder Security Camera \$800 - \$950

Reseller Pricing Available



Menu

The screenshot displays the 'Mobile DVR GPS' software interface. At the top, it shows 'Video Playback Analyzing Software V2.15' and the user name 'admin' with the date '2014-11-18 12:25:00'. A toolbar contains icons for camera selection, zoom, and playback controls. On the left, a file list for '2014-11-18(New)' shows various video files, with file 137 highlighted. The main area features four video feeds: 1) Front view of a Staples store, 2) Rear view of the same store, 3) In-vehicle camera view of a driver wearing sunglasses, and 4) Side view of a parking lot. A playback timeline is visible below the feeds, and a bottom menu bar contains icons for 'Enhance Safety', 'Stop Distracted Driving', 'Reduce Accidents', 'Stop Driver Texting', 'Lower Driver Risk', 'Stop Dangerous Driving', 'Reduce Lawsuits', 'Stop Driver Speeding', 'Manage Risk', and 'Stop Fuel Waste'.

Menu



Testudo Lifetime System Warranty Available

SD4HW-PDF

SD4HW Driver Safety | Passenger Security Camera GPS Speed, Mapping & Wi-Fi

The SD4HW version of the mobile video recorder offers Built in GPS providing; vehicle Data File Download CMS software included with the system at no cost.

The SD4HW High Definition 720P-AHD Driver Safety series offers a low cost active driver training device that can help reduce dangerous driving behaviors reduce fleet driver risk from those dangerous driving behaviors and actively remind the drivers to abide management safe driving parameters like maximum speeds, reduction of hard turns and rapid acceleration or breaking. Driver Behavior recording aspects of the 3-Axis accelerometer, combined with the active driver alerts provide a powerful tool for

Menu

management to help insure safe driving is both a goal as well as a documentable reality.

Problems relating to driver behaviors, driver interactions with passengers, passenger actions or interactions can be documented in a sequential video event digital witness record to dispute false claims of verify reported or suspected problems.

SD4HW GPS & Wi-Fi Vehicle Camera System Features:

- GPS Vehicle Speed
- GPS On Screen Mapping
- Wi-Fi Wireless Module Built in
- 10-Year Camera Warranty Standard
- Lifetime System Warranty Available
- Wi-Fi Automated Videos File Download
- Enhanced Video File Evidence Security
- 512 GB Solid Twin SD State Memory Capacity
- Active Driver Safety Training Device with Active Driver Alerts
- Choice of Low Profile or Turret Vandal Cameras at no additional cost

SD4HW Vehicle Camera System Pricing:

SD4HW-1 ...1 -Camera Student Transit or Paratransit Shuttle Van Camera Safety System for Bus Surveillance \$600 - \$750

SD4HW-2...2-Camera Student Transit or Paratransit Shuttle Van Camera Safety System for SD4HW-3...3-Camera Pupil Transportation Contractor in-Bus Video Safety System Security Video Surveillance \$800 - \$950

Menu

SD4HW4 ...4-Camera Pupil Transportation Contractor in-Bus Video Safety System Security Video Surveillance \$900 - \$1,050

Reseller Pricing Available



Wide chart deflections can indicate dangerous driving behaviors that may indicate a need for additional fleet driver risk management oversight by supervisors or in some cases management intervention in order to prevent those recorded and identified dangerous driving behaviors from creating a potential threat to life and limb, risk of capital investment in assets or liability lawsuits. Distracted fleet drivers often display hard braking as they are often not paying attention to the vehicle in front of them until they are about to hit it, hence reconstruction when it is already too late.

Menu



More Information and Photo Gallery Screenshots



Menu
 ≡ Menu



Testudo Lifetime System Warranty Available

SD4HC-PDF

SD4HC Driver Safety | Passenger Security Camera Live View 3G Cellular, Live GPS & Wi-Fi Wireless

The SD4HC High Definition 720P-AHD Driver safety & passenger security vehicle camera system is a video event recorder that can be incorporated as a low cost active driver training device that can help reduce dangerous driving behaviors, reduce fleet driver risk from those dangerous driving behaviors and actively remind the drivers to abide management safe driving parameters like maximum speeds, reduction of hard turns and rapid acceleration or breaking. In-vehicle or onboard mobile surveillance systems for vehicle applications are incorporated to provide verifiable video documentation in the areas of Driver Safety and Transit Passenger Security in case of incident or event. The SD4HC Driver Safety series offers an active driver training device that can help reduce dangerous driving behaviors

Menu

reduce fleet driver risk from those dangerous driving behaviors and actively
remind the

= Menu

Axis accelerometer, combined with the active driver alerts provide a powerful tool for management.

SD4HC Cellular Vehicle Camera System Features:

- Live GPS Vehicle Tracking
- Live View 3G Video Streaming
- Wi-Fi Automated Videos File Download
- 10-Year Camera Warranty Standard
- Lifetime System Warranty Available
- Enhanced Video File Evidence Security
- 512 GB Solid Twin SD State Memory Capacity

SD4HC Vehicle Camera System Pricing:

SD4HC-1 ...1-Camera Taxi / Limousine Camera, Paratransit Shuttle Bus Camera Safety Surveillance System \$1,100 - \$1,200

SD4HC-2...2-Camera Taxi / Limousine Camera, Paratransit Shuttle Bus Camera Safety Surveillance System \$1,200 - \$1,300

SD4HC-3...3-Camera Taxi / Limousine Camera, Elderly Assisted Living Paratransit Shuttle Bus Camera \$1,300 \$1,400

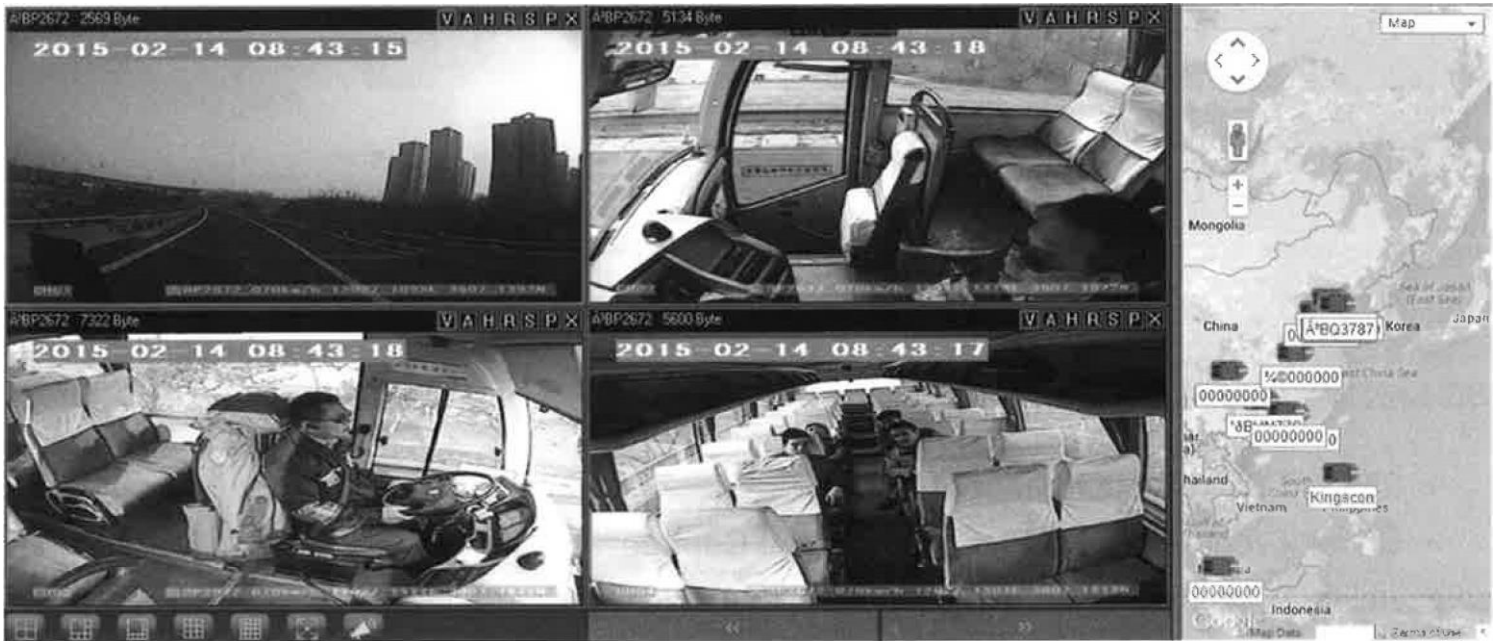
SD4HC4 ...4-Camera Taxi / Limousine Camera, Elderly Assisted Living Paratransit Shuttle Bus Camera \$1,400 - \$1,500

Reseller Pricing Available

Menu = menu



CMS 3G Cellular Live View vehicle video streaming surveillance with live GPS Vehicle Tracking & Live Panic Button Alerts



SD4HC Live View Remote CMS Screenshot Photo Gallery

≡ Menu



SD4mX Driver Safety Series



SD4mX-PDF

SD4mX Vehicle Camera System Features:

- 256 GB Solid State Memory Capacity
- Driver Event Marker w/Pre & Post Event Capture
- Active Driver Safety Training Device with Active Driver Alerts
- Built in 3-axis Accelerometer, Crash & G-Sensor Charting

=

SD4mX-1 . . . I-Camera Student Transit Camera for Public or Contractor
School Bus Child Safety Surveillance \$650 - \$750

SD4mX-2...2-Camera Student Transit Camera for Public or Contractor School
Bus Child Safety Surveillance \$750 - \$850

SD4mX-33-Camera Pupil Transportation School Bus Child Observation
Security Video Surveillance Camera \$850 - \$950

SD4mX-4....4-Camera Pupil Transportation School Bus Child Observation
Security Video Surveillance Camera \$950 - \$1,050

GPS Module- Option for Vehicle Speed, Lon & Lat On Screen Mapping
During Playback.. ...\$50

Reseller Pricing Available

=



Wide chart deflections can indicate dangerous driving behaviors that may indicate a need for additional fleet driver risk management oversight by supervisors or in some cases management intervention in order to prevent those recorded and identified dangerous driving behaviors from creating a potential threat to life and limb, risk of capital investment in assets or liability lawsuits. Distracted fleet drivers often display hard braking as they are often not paying attention to the vehicle in front of them until they are about to hit it, hence the cause for the hard braking. Fleet driver risk management is enhanced when clear indications of dangerous driving behaviors can be identified prior to the accident scene reconstruction when it is already too late.

=

The screenshot displays a multi-camera video player interface. The main area is divided into several video feeds. The largest feed in the center shows the interior of a bus, with several passengers seated. To the left, there are several smaller, vertical feeds showing different interior angles. Above the main interior feed, there is a horizontal feed showing the view from the front of the bus, looking out onto a road with other vehicles and buildings. To the right of the main interior feed, there is another vertical feed showing a side view of the bus. Below the video feeds, there is a dark horizontal bar, likely representing a timeline or audio waveform. On the right side of the interface, there is a search and filter panel. It includes a 'Video Files' section with a location path 'H:\', a date filter set to '2010-08-30', and a 'Video Type' dropdown set to 'All Video'. Below this is a search bar with a date range '2012-11-15' and a time range '18:38:08'. It indicates '24 files found!' and has buttons for 'Video Files', 'DVR Log', and 'Map'. At the bottom of the interface, there are playback controls including 'Play stop st»', 'sn»', 'Audio 1' (dropdown), 'Audio' (button), '1X' (dropdown), 'PlaySpeed' (button), and 'Speed' (button).

Playback on PC or Mac running Parallels, Below GPS option On Screen
Mapping option

=



GPS option for vehicle speed and location, On Screen Mapping via Google provided mapping during playback.

=

The screenshot displays a vehicle dashboard camera interface. The main view is a forward-facing camera feed of a road with a white dashed center line and white arrows on the pavement. In the top left corner, the text reads "CH:01 ABV SVS 1". In the top right corner, the date and time are "12/12/04" and "12:10:24". In the bottom left corner, the speed is "18.2MPH" and the coordinates are "A +34.239170 -84.195618". To the right of the camera feed is a map view showing the current location on a street grid. Below the map is an "Information" panel with "Latitude:34.239217" and "Longitude:-84.195422", and "Speed:23.1KPH". Below the information panel are buttons for "Video Files", "DVR Log", and "Map". At the bottom of the interface is a control bar with buttons for "Pause", "Stop", "Step", "FullScreen", "Snap", "Camera 1", "Audio 1", "1X", "PlaySpeed", "X,Y,Z Diagram", "Download Info", and "Time Diagram".



SD4FHD Driver Safety & Passenger Security Camera

1080P Dangerous Driver Charting G-Sensor

≡ menu



SD4FHD-PDF

Vehicle Video Observation System

SD4FHD Vehicle Camera System Features:

- 1080P High Definition Video on all channels
- 512 GB Twin SD Card Bays for 100% Solid State Memory Capacity
- 4-channel DVR accepts 4 Megapixel IR Night Vision cameras with built in audio
- Mosaic "Blurring" software to help protect non involved passengers

- Built in 3-axis Accelerometer, Crash trigger & G-Sensor Charting
- Remote DVR Status LED Indicator (option) permits driver to know if the system is fully functional
- 1080P-AHD High Definition 1920 x 1080 TVL & H.264 compression
- "AHD" DVRs were designed to function with new Megapixel & older CCTV Analog cameras
- 10-Year Camera Warranty on every High Definition 720P & 1080P Camera
- "Testudo Lifetime Warranty Protection" (Option Available)

=

5U41-HLJ vehicle camera system pricing:

SD4FHD-1 ...1-Camera Safe Driver / Passenger In-Vehicle Security Surveillance

Observation Camera \$700 - \$850

SD4FHD-2...2-Camera Safe Driver / Passenger In-Vehicle Security Surveillance Observation Camera \$800 - \$950

SD4FHD-3...3-Camera Driver Safety / Passenger Security Onboard Vehicle Digital Video Evidence Camera \$900 - \$1,050

SD4FHD-4...4-Camera Driver Safety / Passenger Security Onboard Vehicle Digital Video Evidence Camera \$1,000 - \$1,150

STOP ARM Violation Cameras - High Definition School Bus Stop Arm Violation Camera No Additional Cost

Re--er-Pricing Available

SD4FHD sample Screenshots in Low-Resolution



=

All actual images are High Definition Full HD 1080p 1920x1080. Sample High Definition images.



High Definition Stop Arm Camera 12mm 2 Megapixel License Plate Capture from a distance of approximately 30 feet screenshot. The above is a low resolution image. All actual images are High Definition Full HD 1080p 1920x1080. Sample High Definition images.

☰ Menu



High Definition 2.8mm 2 Megapixel Driver Safety Camera screenshot. The above is a low resolution image. All actual images are High Definition Full HD 1080p 1920x1080. [Samples of the High-Resolution Images.](#)



High Definition 2 Megapixel Driver Safety Vehicle Video Surveillance Camera with GPS route tracing screenshot. The above is a low resolution image. All actual images are High Definition Full HD 1080p 1920x1080. Sample High Definition images.

==



---- GHf_

High Definition 12mm 2 Megapixel License Plate Capture Camera from a distance of approximately 30 feet screenshot. The above is a low resolution image. All actual images are High Definition Full HD 1080p 1920x1080. Sample HighDefin1tL-n-images:



SH4FHW Driver Safety & Passenger Security Camera

1080P w/Automated Data Download via Wi-Fi

≡ MENU



Testudo Lifetime System Warranty Available

SD4FHW-PDF

Vehicle Video Observation System w/GPS & Wi-Fi

SD4FHW Vehicle Camera System Features:

- High Definition Low Cost Onboard Vehicle Video Surveillance Solution
- GPS Vehicle Speed & On Screen Mapping included shows vehicle location on map during playback
- Wi-Fi Automated Videos File Download
- 512 GB Twin SD Card Bays for 100% Solid State Memory Capacity
- 4-channel School Bus Video DVR accepts 4 cameras with audio
- Mosaic "Blurring" software to help protect non involved passengers during video presentation
- Built in 3-axis Accelerometer, Crash trigger & G-Sensor Charting
- Remote DVR Status LED Indicator (option) permits driver to know if the system is fully functional

=

-
- "AHD" DVRs were designed to function with new Megapixel & older CCTV Analog cameras with standard connections
 - 10-Year Camera Warranty on every High Definition 720P & 1080P Camera
 - "Testudo Lifetime Warranty Protection" (720P & 1080P Option Available)

SD4FHW GPS & Wi-Fi System Pricing:

SD4FHW-1...1 -Camera Driver Safety Driver Training Solution for Mobile Video Vehicle Surveillance Camera \$800 - \$950

SD4FHW-2 ...2-Camera Driver Safety Driver Training Solution for Mobile Video Vehicle Surveillance Camera \$900 - \$1,050

SD4FHW-3 ...3-Camera Vehicle Passenger Expert Video Witness Non-Biased Sequential Liability Litigation \$1,000 - \$1,150

SD4FHW-4 .4-Camera Vehicle Passenger Expert Video Witness Non-Biased Sequential Liability Litigation \$1,100 - \$1,250

Re—Jecericing Available

SD4FHW sample Screenshots in Low-Resolution to speed up page loading. Quad view with G sensor & satellite mapping screenshot. The below are low resolution image to speed up page loading.

☰ Menu



All actual images are High Definition Full HD 1080p 1920x1080. Sample High Definition images.



High Definition 12mm 2 Megapixel License Plate Capture Camera from a distance of approximately 30 feet screenshot. The above is a low resolution image. All actual images are High Definition Full HD 1080p 1920x1080. Sample High Definition images.

≡ menu



High Definition 2.8mm 2 Megapixel Driver Safety Camera screenshot. The above is a low resolution image. All actual images are High Definition Full HD 1080p 1920x1080. Sample Hjgb-Qein-iiiio-n-jmage.s.



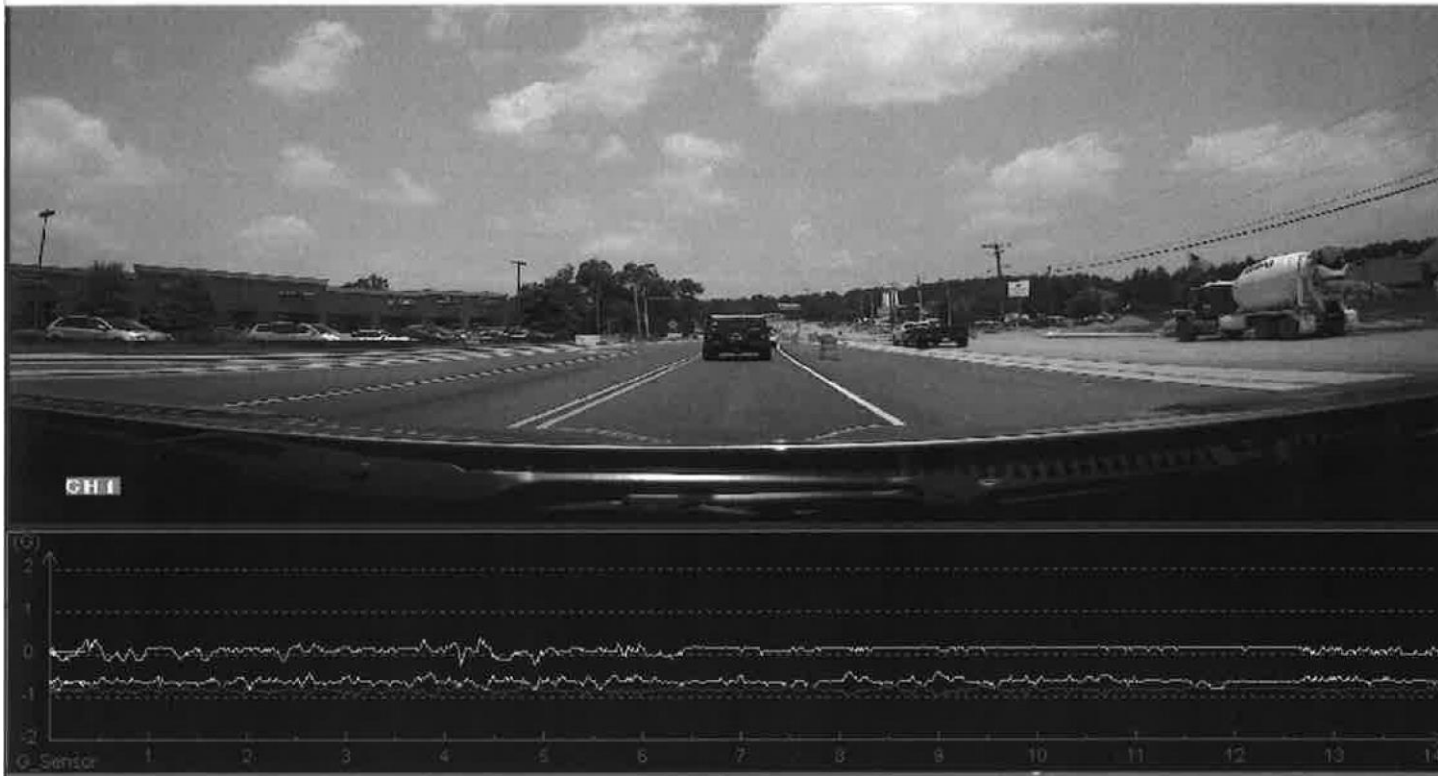
High Definition 2 Megapixel Driver Safety Vehicle Video Surveillance Camera with GPS route tracing screenshot. The above is a low resolution image. All actual images are High Definition Full HD 1080p 1920x1080. [Sample High Definition images.](#)

☰ Menu



High Definition 12mm 2 Megapixel License Plate Capture Camera from a distance of approximately 30 feet screenshot. The above is a low resolution image. All actual images are High Definition Full HD 1080p Definition 1920x1080. Sample Hig images.

☰ Menu



High Definition 2.8mm 2 Megapixel Forward Road Camera screenshot. The above is a low resolution image.

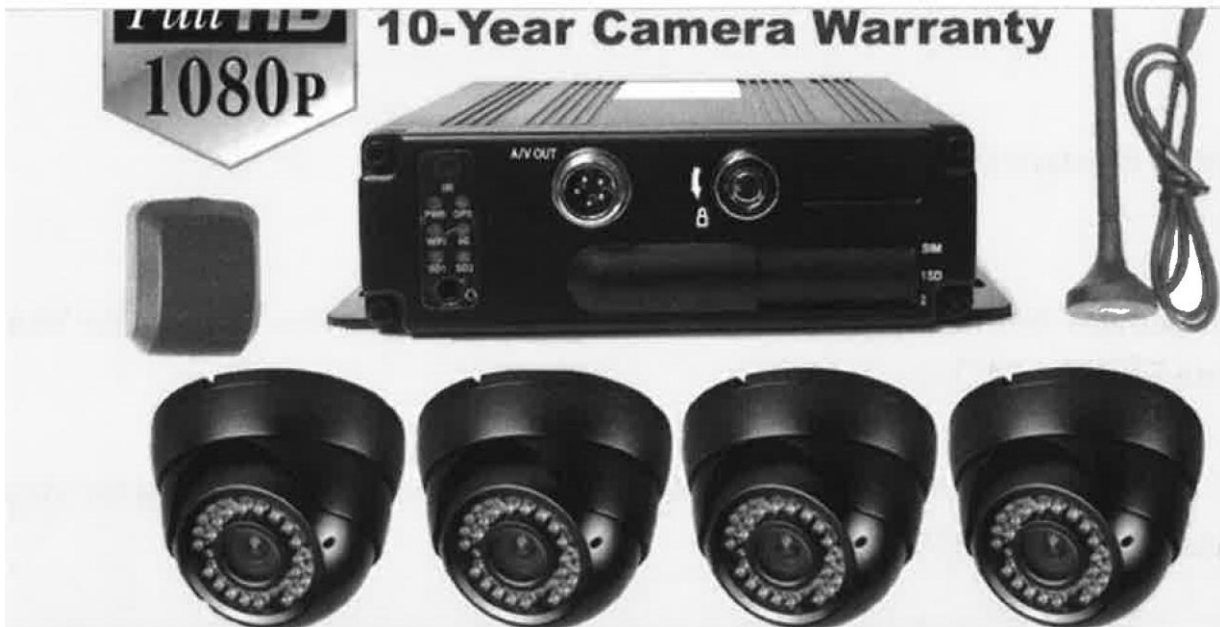
All actual images are High Definition Full HD 1080p 1920x1080. [Sample High Definition images..](#)



SD4FHC Driver Safety / Passenger Security Camera

Live View 3G Cellular, Live GPS & Wi-Fi Wireless

≡ Menu



Testudo Lifetime System Warranty Available

SD4FHC-PDF

Live View Digital HD Eye Witness Video Observation System w/GPS & Wi-Fi

SD4FHC Vehicle Camera System Features:

- Live Video Streaming 3G/4G LTE Onboard Vehicle Video Surveillance Solution
- GPS Vehicle Speed & On Screen Mapping included shows vehicle location • Wi-Fi Automated Videos File Download
- .512 GB Twin SD Card Bays for 100% Solid State Memory Capacity
- 4-channel School Bus Video DVR accepts 4 cameras with audio
- Mosaic "Blurring" software to help protect non involved passengers

- Built in 3-axis Accelerometer, Crash trigger & G-Sensor Charting
- Remote DVR Status LED Indicator (option) permits driver to know if the system is fully functional
- 1080P-AHD High Definition 1920 x 1080 TVL & 1-4.264 compression
 - "AHD" DVRs were designed to function with new Megapixel & older CCTV Analog cameras with standard connections

=

SD4FHC Cellular System Pricing:

SD4FHC-1 ...1-Camera Taxi / Limousine Camera, Paratransit Shuttle Bus Camera for Video Van Surveillance \$1,100 - \$1,200

SD4FHC-2...2-Camera Taxi / Limousine Camera, Paratransit Shuttle Bus Camera for Video Van Surveillance \$1,200 - \$1,300

SD4FHC-3...3-Camera Taxi / Limousine Camera, Elderly Assisted Living Paratransit Shuttle Bus Camera \$1,300 - \$1,400

SD4FHC-4 ...4-Camera Taxi / Limousine Camera, Elderly Assisted Living Paratransit Shuttle Bus Camera \$1,400 - \$1,500

STOP ARM Violation Cameras - High Definition 1080P-AHD School Bus Stop Arm Violation Camera No Additional Cost

Reseller Pricing Available

SD4FWH sample Screenshots in Low-Resolution to speed up page loading. Quad view with G sensor & satellite mapping screenshot. The above is a low resolution image to speed up page loading.

☰ Menu



CMS 3G/4G LTE Cellular Live View vehicle video streaming surveillance with
live GPS Vehicle Tracking & Live Panic Button Alerts



=

Police Body Worn Camera Technology For Driver Body Camera Applications

ottr

DBC-Pro

5 Megapixel High Definition
Image Resolution Full High
Definition Resolution Video
1920x1080

140 Degree Viewing Angle, Large Field of View

TFT-LCD High-Resolution Color Screen Display on rear

GPS location, heading, altitude & speed (DBC-Pro only)

GPS On Screen Mapping during playback (DBC-Pro only)

Time stamp display/ Car number stamp display for use as evidence

Dash Recorder Mode; works as a dashboard camera (DBC-Pro only)

Rugged Weatherized Driver Body Camera or Police Personal Camera
solution

Driver Body Cameras aka Wearable Camera for Drivers

Driver Body Cameras are Police Body Worn Camera technology and features, in some cases the exact same personal body cameras worn by law enforcement officers, and introduces this level of mobile personal worn cameras to the Fleet Driver Risk Management markets, in an effort to reduce risks associated with fleet drivers that are not managed well with in-Vehicle Surveillance Solutions alone. For the first time what a driver sees and how they interact with a passenger or customer in or outside the vehicle can be documented for

=

- Protect your School Bus or Fleet Drivers with Driver Body Worn Cameras that can help protect them from personal risk that can damage a drivers reputation, cause loss of work, loss of license or criminal charges.

- Protectyour-SchQQ--Qjstrict-QLCompany-with Driver Body Worn Cameras that can help protect from liability lawsuits and wrongful claims made that can damage School District or company reputation and jeopardize assets from those who will bear false witness and deceive in order to get a fat settlement.

Areas Where Driver Safety Body Cameras Can Help:

- Pre Drive Safety Check - Often a vehicle safety check is required by company policy or mandated before school bus or commercial vehicle is driven. This safety check can now be documented with the Driver Safety Body Worn Personal Camera in case claims are made that the vehicle was not safe to operate on the road, missing lights, no strobe, no Stop Arm, under inflated tires or other safety violation.
- Wheel Chair Lift Operation - While interior cameras inside a school bus or paratransit vehicle may document the inside view of the lift operation, some situations or incidents may occur where it would be helpful to capture the operation from the outside on a Driver Safety Body Worn Personal Camera While rare, occurrences of those being lifted removing the safety straps themselves that secure their chair to the lift have caused falls directly resulting them their own actions that targeting driver lift failure ended up in large settlements in order to avoid court jury litigation.
- Special Needs Passengers - Often they will require straps to secure them into their seats for transport, and some strap applications require a driver to push or pull straps between their legs and under crotch areas. Those of diminished mental facilities or under pharmaceutical medication may miss-interrupt perceived privacy violations, sexual abuse during this operation. The Driver Safety Body Worn Personal Camera can provide much more detailed video evidence from the drivers point off view that cameras in the vehicle cannot provide.
- Special Needs Passenger To Door - Are often assisted by the driver to their door which outside the vehicle is no longer documented by the

School Bus or Transit vehicle surveillance system. Claims made regarding to door service cannot be substantiated or refuted when the driver leaves the vehicle as the vehicle mounted surveillance

==

-
- On Site Service Applications - Service Companies like pest control, lawn care, pool service all involve quick stops and checks or service on many locations a day and often the customer may not notice the service person has stopped by. In some cases a simple note will be left to let them know your lawn was treated, or your site was provided a pest control application. Often the customer will claim the driver did not provide the service requiring a return trip to provide the customer piece of mind that the company is reputable and the driver did the right service. The Driver Body Camera can provide video surveillance and documentation of on site service process outside the customer site with images video both time stamped for verification if needed.
 - On Site Pickup - Courier pickup of documents or product can be better documented with the use of the Driver Body Camera, as it will show who was interacted with and document any verbal interaction or instructions that may be important or overlooked and can then later be referred to. The Driver Body Camera provides an added level of security and evidence documentation in case of problems claimed or experienced as a result of the transaction.
 - Security Officers - Similar functions of Police Body Camera performing motor and foot patrols can better document out of vehicle activities, interactions with others while documenting the process and details that might be overlooked at the time and later become essential in resolving liability litigation claims of wrongful action or activities.
 - Auto, Boat & Aircraft Repossession - The Driver Safety Body Camera can document the often very heated exchanges and interactions between those charged with reacquisition of property when a lease defaults or refuses to pay for a luxury product.

The above application examples are just a sample of how cameras worn by drivers or officer body cameras can provide expert witness documentation of claims made that are often without third party witness and often difficult to resolve what really happened. Regardless of the specific application when drivers perform their duties in the proper manor the Driver Body Camera personal surveillance recorder can support their actions and provide verifiable video evidence that can confirm or refute allegations made against them.

Driver Body Camera | Police Body Worn Camera w/GPS Pricing:

1

=

Field of View, Night Vision IR LEDs, Red Laser designator, Full High Definition Images

1920x1080, 5 Megapixel Images, 2" TFT-LCD High Resolution display, High Technology Ambarella A7L50 Processor chip. Features also include; Built in GPS for: Location, Course, Altitude & Speed, Dash Module for use as a Dash Camera.

DBC-Pro... HD 1080p GPS Driver Body Camera / Police Body Camera
\$330 - \$430

Reseller Pricing Available

High Definition Full HD1080p DBC-Pro Driver Body Camera with GPS and Dash mount for use as a dashboard camera, Full Screen image.



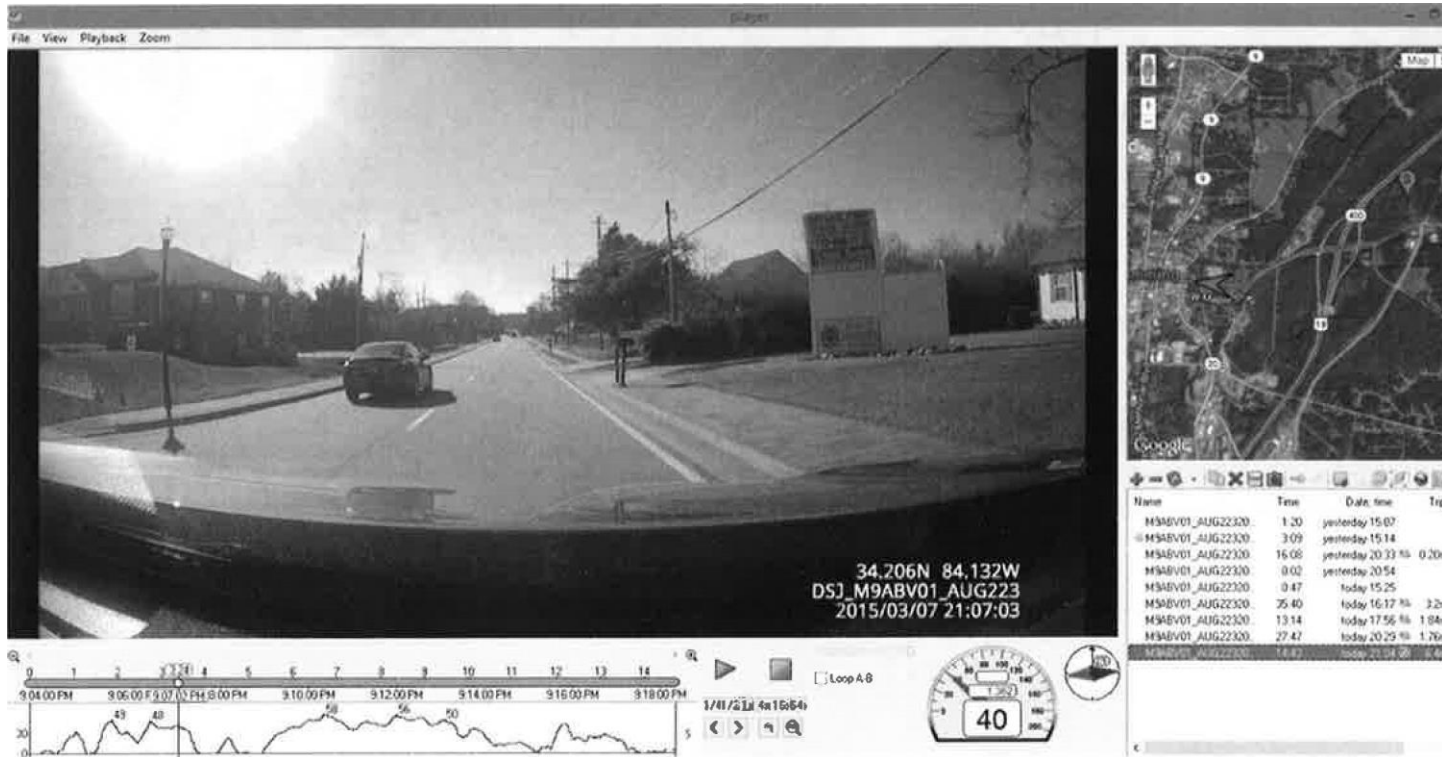
High Definition Full HD1080p DBC-Pro Driver Body Camera with GPS and Dash mount for use as a dashboard camera, definition high enough for license plates and facial recognition.

☰ Menu



High Definition Full HD1080p DBC-Pro Driver Body Camera with GPS and Dash mount for use as a dashboard camera, Speed charting under image for documenting high speed driving, compare the speed on the GUI, and compare it to the speed limit signs when they

pass one.



=

secures passenger in case of questions as to whether they were secured.

This is something the standard bus video camera system cannot do.





Driver Body Camera Screenshot Gallery



SUPPORT OUR TROOPS

Freedom is Not Free
Special Thanks to the men & women,
of the United States Armed Forces.

To those who defended our Freedom
by defeating tyranny in the past,
Those who continue to sacrifice for Freedom
from tyranny & despotism in the present,
Those who accept the personal responsibility
to defend Freedom in the future.

To insure the sun will always shine on the
"Land of the Free, and Home of the Brave"

Thank You!

NAVY • ARMY • AIR FORCE • MARINES • COAST GUARD

Digital Mobile Video Solutions Links:
[American Bus Video Camera Solutions](#)

School Bus Cameras

Vehicle Video Cameras

Fleet Driver Risk Management

Digital Mobile Video Application Links:

School Bus Child Safety Surveillance Cameras

Armored Vehicle Security Digital Witness Surveillance System

Limousine VIP Executive Transport Surveillance Digital Witness Solution

Taxi Cab Shuttle Transit Onboard Digital Witness Safety Camera

Special Needs Child Transport Bus Video Observation Camera Solutions

Waste Collection Safety Surveillance Digital Expert Witness Camera

=

Dr-I—ex-Safety Surveillance Video Observation Cameras

Transportation Ministry Youth Group Activities Vision Safety Camera System

Stop-Arm-Ca—era-Lic—P-late-Capture HD Solution.

School Bus or Transit Bus Ceiling Camera

School Bus or Transit Bus Seat Vandalism

Elderly Day Care Shuttle & Assisted Living Transportation

Alternative School & Juvenile Detention Transportation Cameras

Heavy Duty Forklift Boom, Crane, Pallet Truck Operator Vision Safety
Camera System

Police Prisoner Inmate In-Custody Transport Surveillance Expect-Witness-Camera

City Metro Transit Bus Cameras

CS Spotter-5th-Wheel King Pin Trailer Switcher Camera

Forklift Skid Wheel Loader Operator-Safety-Camera

Forklift & Skid Wheel Loader Operator Safety Impact & Tilt Alarm

Private Bus Service Student Contractor Charter Bus Camera Compliance

Toll Free: 866.468.8042

sales@AmericanBusVideo.com



=

moores@estransit.com

From: Mike Cameron <michael.cameron@samsara.com>
 Sent: Monday, December 24 2018 9:30 AM
 To: pmoores@estransit.com
 Subject: Re: Request for Price Quote

Here is a quote for your 15 buses. Let me know if you have any questions. All of our equipment comes with a 5year warranty. Not cost for installation or training or support.

<https://www.samsara.com/fleet/dash-cam>

		Vehicles)	
		3-Year Option	5-Year Option
 <p>VG34 VEHICLE GATEWAY</p>	Hardware Cost (Onetime)	VG34: 130.00/Vehicle	VG34: Free cnuz: Free
	Licensing Cost (Per Vehicle)	CM22: \$50/month CM22: \$350/Vehicle	cm: \$50/mmth
		<p>34.170.00</p> <p>.Sdb,000</p>	<p>----- Total investment</p>

Samsara Pricing Dual facing Cameras (15

*shipping/tax not included

Best,

Mike Cameron
michael.cameron@samsara.com
m

Account Executive

(408) 877 - 4317

EASTERN SIERRA TRANSIT AUTHORITY

Minutes of Friday, December 14, 2018 Regular Meeting

The meeting of the Board of Directors of the Eastern Sierra Transit Authority was called to order at 11:02 a.m. on Friday, December 14, 2018 at City of Bishop Council Chambers, 301 West Line St. Bishop, California. The following members were present: Bob Gardner, Kirk Stapp, Jeff Griffiths, Karen Schwartz, Bill Sauser and Jim Ellis. Dan Totheroh and Jennifer Halferty were absent. Director Griffiths led the pledge of allegiance.

Public Comment	None.
Introduction of New Executive Director	Phil Moores introduces himself as ESTA's new Executive Director and informs the Board that Joe Warta is the new Mammoth Lakes Operations Supervisor. Mr. Warta was not able to attend.
Executive Director Report	Mr. Moores reported on ESTA activities and performance.
Financial Report for FY 2018/19	Ms. Bentley presented the Financial Report for FY 2018/19 for the period ending December 10, 2018.
Preliminary Financial Report for FY 2017/18	Ms. Bentley presented the preliminary Financial Report for FY 2017/18.
Operations Report	Mr. Moores presented the Operations report for the month of November 2018.
Organizational Assessment	Ms. Bentley presented the Organizational Assessment and Triennial Audit Recommendations Update.
Election of 2019 Chairperson and Vice-Chairperson	<p>Moved by Director Sauser and seconded by Director Schwartz to confirm the selection of Director Griffiths as Chairperson. Motion carried 5-0 with Director Griffiths abstaining and Directors Totheroh and Halferty absent.</p> <p>Moved by Director Sauser and seconded by Director Ellis to confirm the selection of Director Gardner for Vice-Chairperson. Motion carried 5-0 with Director Griffiths abstaining and Directors Totheroh and Halferty absent.</p>

<p>2019 Board Meeting Calendar</p>	<p>Moved by Director Ellis and seconded by Director Gardner to approve the 2019 ESTA Board meetings be held on the second Friday of each month and/or to coordinate Eastern Sierra Council of Governments (ESCOG) meeting dates. The meetings are to alternate between Bishop and Mammoth with two consecutive meeting in each location. ESTA Board meetings will begin at 9:00 am except on days when coordinating with ESCOG meetings, when the ESTA meeting will begin at 11:00 am. The meeting date are scheduled as follows:</p> <p>2019 Board Meeting Calendar:</p> <ul style="list-style-type: none"> January 11th in Bishop at 9:00 a.m. February 8th in Mammoth at 11:00 a.m. March 8th in Bishop at 9:00 a.m. April 12th in Bishop at 11:00 a.m. May 10th in Mammoth at 9:00 a.m. June 14th in Mammoth at 11:00 a.m. July 12th in Bishop at 9:00 a.m. August 9th in Bishop at 11:00 a.m. September 13th in Mammoth at 9:00 a.m. October 11th in Mammoth at 11:00 a.m. November 8th in Bishop at 9:00 a.m. December 13th in Bishop at 11:00 a.m.
<p>Board Authorization for Executive Director to Perform 2018/19 June Mountain Ski Shuttle Service</p>	<p>Motioned by Director Gardner and seconded by Director Sauser to authorize the Executive Director to provide the 2018/19 June Mountain Ski Shuttle Service. Motion carried 6-0 with Directors Totheroh and Halferty absent.</p>
<p>Consent Agenda</p>	<p>Moved by Director Sauser and seconded by to Director Gardner to accept the consent agenda consisting of: Approval of Meeting minutes for October 19, 2018, LCTOP Authorized Agent, and Letter of Support for the City of Bishop for the Caltrans Sustainable Communities Grant application. Motion carried 6-0 with Director Totheroh and Halferty absent.</p>
<p>Board Member Comments</p>	<p>Director Gardner and Stapp discussed possible service changes to the Old Mammoth area. Director Ellis commented on his visit to the ESTA Bishop office.</p>

Adjournment	The Chairperson adjourned the meeting at 12:02 p.m. The next regular meeting of the Eastern Sierra Transit Authority Board of Directors is scheduled for January 11, 2019, at 9:00 a.m. at City of Bishop Council Chambers, 301 West Line St. Bishop, CA.
-------------	--

Recorded & Prepared by:

Linda Robinson
Acting Board Clerk
Eastern Sierra Transit Authority

Minutes approved:

STAFF REPORT

Subject: Conflict of Interest Code Review

Initiated by: Karie Bentley, Administration Manager

BACKGROUND:

The Political Reform Act requires every public agency to adopt a conflict of interest code. In addition, the Political Reform Act requires every government agency to review its conflict of interest code biennially to determine whether it should be amended.

ANALYSIS/DISCUSSION:

The Political Reform Act requires every local government agency to review its Conflict of Interest Code biennially to determine if the Code is accurate, or alternatively, that the Code must be amended. The Political Reform Act requires that no later than October 1st of each even-numbered year, each agency must submit to its code reviewing body a notice indicating whether or not an amendment is necessary. It has been determined that amendments to Eastern Sierra Transit Authority's Conflict of Interest Code are necessary as job titles changed with ESTA's recent reorganization. This involves removing Transit Analyst, adding Administration Manager and updating the Operation Supervisor title to match current job descriptions. Additionally, the wording has been updated to require electronic filings.

A Notice of Intention must be prepared and multi-county agencies must have a 45-day public comment period.

RECOMMENDATION

The Board is requested to direct staff to conduct the following activities in compliance with the biennial review the Authority's Conflict of Interest Code:

- Prepare the Notice of Intention
- Conduct the 45-day public comment period that starts January 14, 2019 and terminates on February 27, 2019
- File a copy of the notice with the Fair Political Practices Commission, and provide notice to staff and post the notice as required by law

- Direct the Executive Director to execute the declaration of Chief Executive Officer for Multi-County Agencies and prepare and submit all other necessary documents.

Following completion of the above, it is anticipated that the Conflict of Interest Code with revisions will be brought back to the Board at the March meeting for approval.

NOTICE OF INTENTION TO AMEND THE CONFLICT OF INTEREST CODE
OF THE EASTERN SIERRA TRANSIT AUTHORITY

NOTICE IS HEREBY GIVEN that the Eastern Sierra Transit Authority, pursuant to the authority vested in it by section 87306 of the Government Code, proposes amendment to its conflict of interest code. A comment period has been established commencing on January 14, 2019 and closing on February 27, 2019. All inquiries should be directed to the contact listed below.

The Eastern Sierra Transit Authority proposes to amend its conflict of interest code to include employee positions that involve the making or participation in the making of decisions that may foreseeably have a material effect on any financial interest, as set forth in subdivision (a) of section 87302 of the Government Code. The amendment carries out the purposes of the law and no other alternative would do so and be less burdensome to affected persons.

Changes to the conflict of interest code include:

Removing Transit Analyst from list of filers, adding Administration Manager to list of filers, updating the Operations Supervisor job title, require electronic filings, and also makes other technical changes.

The proposed amendment and explanation of the reasons can be obtained from the agency's contact.

Any interested person may submit written comments relating to the proposed amendment by submitting them no later than February 27, 2019 or at the conclusion of the public hearing, if requested, whichever comes later. At this time, no public hearing is scheduled. A person may request a hearing no later than **February 12, 2019**.

The Eastern Sierra Transit Authority has determined that the proposed amendments:

1. Impose no mandate on local agencies or school districts.
2. Impose no costs or savings on any state agency.
3. Impose no costs on any local agency or school district that are required to be reimbursed under Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.
4. Will not result in any nondiscretionary costs or savings to local agencies.
5. Will not result in any costs or savings in federal funding to the state.
6. Will not have any potential cost impact on private persons, businesses or small businesses.

All inquiries concerning this proposed amendment and any communication required by this notice should be directed to:

Linda Robinson
Administrative Specialist I
760-872-1901 ext. 17
lrobinson@estransit.com

CONFLICT OF INTEREST CODE FOR THE EASTERN SIERRA TRANSIT AUTHORITY

The Political Reform Act (Government Code Section 81000 et. seq.) requires state and local government agencies to adopt and promulgate conflict of interest codes. The Fair Political Practices Commission has adopted a regulation (2 California Code of Regulations Sec. 18730) which contains the terms of a standard conflict of interest code, which can be incorporated by reference in an agency's code. After public notice and hearing it may be amended by the Fair Political Practices Commission to conform to amendments in the Political Reform Act. Therefore, the terms of 2 California Code of Regulations Section 18730 and any amendments to it duly adopted by the Fair Political Practices Commission are hereby incorporated by reference. This regulation and the attached Appendices, designating officials and employees and establishing disclosure categories, shall constitute the conflict of interest code for the **Eastern Sierra Transit Authority (Authority)**.

~~Individuals holding designated positions shall file their statements of economic interests with the Authority, which will make the statements available for public inspection and reproduction. (Gov. Code § 81008) Upon receipt of the statements for the Board of Directors, their alternates, and the Executive Director, the Authority shall make and retain a copy and forward the originals to the Fair Political Practices Commission. All other statements shall be retained by the Authority. Officials and employees holding positions listed in this code must file their statements of economic interests electronically with the **Fair Political Practices Commission**. All statements must be made available for public inspection and reproduction under Government Code Section 81008.~~

**CONFLICT OF INTEREST CODE FOR THE
EASTERN SIERRA TRANSIT AUTHORITY
APPENDIX A-DESIGNATED POSITIONS**

<u>Designated Positions:</u>	<u>Disclosure Category:</u>
Executive Director	1, 2
Auditor-Controller	1, 2
Transit Analyst-Administration Manager	2
Transportation# Operations Supervisors/Chief of Operations	2
Administrative Analyst	2
Consultants/New Positions*	*

*Consultants and/or new positions shall be included in the list of designated positions and shall disclose pursuant to the broadest category in the conflict of interest code subject to the following limitation:

The Executive Director may determine in writing that a particular consultant and/or new position, although a “designated position,” is hired to perform a range of duties that are limited in scope and thus is not required to fully comply with the disclosure in this section. Such determination shall include a description of the consultant's duties or new position’s duties, and, based upon that description, a statement of the extent of disclosure requirements. The Executive Director’s determination is a public record and shall be retained for public inspection in the same manner and location as this conflict of interest code.

OFFICIALS WHO MANAGE PUBLIC INVESTMENTS

It has been determined that the positions listed below manage public investments and will file a Statement of Economic Interests pursuant to Government Code Section 87200.

- Members of the Board of Directors and Alternates
- Treasurer
- Consultants who manage public investments (if any)

An individual holding one of the above listed positions may contact the Fair Political Practices Commission for assistance or written advice regarding their filing obligations if they believe that their position has been categorized incorrectly. The Fair Political Practices Commission makes the final determination whether a position is covered by Section 87200.

Note: The positions of Auditor-Controller and Treasurer are filled by Inyo county staff members who act in a staff capacity for the agency.

**CONFLICT OF INTEREST CODE FOR THE
EASTERN SIERRA TRANSIT AUTHORITY
APPENDIX B-DISCLOSURE CATEGORIES**

Category 1:

Interest in real property located within the jurisdiction and/or within a two-mile radius of any land owned or used by the Authority.

Category 2:

Investments, business positions, and income, including receipt of gifts, loans, and travel payments, from sources that provide services, supplies, materials, machinery or equipment of the type utilized by the Authority, including, the following types of products or services: advertising, printing, media; automotive/bus/truck equipment, office equipment, financial and insurance services; janitorial, telecommunications/information technology, and legal and safety/risk management.

**DECLARATION OF CHIEF EXECUTIVE OFFICER
Multi-County Agency Conflict of Interest Code for**

Name of Agency

The proposed conflict of interest code specifically includes each agency position that involves the making or participation in the making of decisions which may foreseeably have a material financial effect on an economic interest. Positions that do not make or participate in decisions are not included.

The disclosure categories are written to address the agency's current programs and require disclosure of only foreseeable interests that may create a conflict of interest.

The agency has satisfied all of the requirements of Title 2, Division 6 of the California Code of Regulations Section 18750 preliminary to approval of the proposed code, including providing a comment period for both employees and the public.

Signature

Date

Printed Name

Title