

Western School District  
Request for Proposal

***PRO-VISION® 8 Channel Solid State Video Recording System***

November 10, 2016

## General Information

- I. Scope of the Project
  - A. The Western School District is seeking a qualified vendor to purchase the *PRO-VISION® 8 Channel Solid State Video Recording System* for ten school buses. See attachment for specifications.
- II. Bid Submission
  - A. Bid closing Friday, November 18th at 12:00 PM EST. All bids received after closing will automatically be rejected. Bids must be sealed and addressed to the attention of the Director of Operations.
- III. Bid Opening
  - A. All sealed bids will be opened at 2:30 PM on November 18th.

Sealed bids will be received at:

Western School District  
Administration Office; Attention: Director of Operations  
1400 S. Dearing Rd.  
Parma, MI 49269

Fax and electronic bids will not be accepted.

Any questions concerning this bid should be directed to:

Craig Raehtz, Director Operations  
(517)841-8180  
[craig.raehtz@wsdpanthers.org](mailto:craig.raehtz@wsdpanthers.org)

A copy of this bid request can be found at: [www.wsdpanthers.org](http://www.wsdpanthers.org)

The Western School District reserves the right to accept or reject any or all bids, and to waive any minor discrepancies or technicalities in the bid or specifications when deemed to be in the best interest of the school.

**PRO-VISION® Video Systems**  
**8 Channel Solid State Bus Video System**

**Product Description and Minimum Specifications**

System

- The system must be able to provide video coverage of persons entering the door, the driver, front row passengers and all the way to the rear seating area with the use of one camera.
- The system and its primary data storage device must be completely solid state. Systems that have no moving parts such as a hard drives, fans, and mechanical relays are not acceptable.
- The system must record video files in an \*.avi file format to allow, without requiring any file
- conversion, recorded video to be uploaded and viewed without proprietary viewing software.
- The system must utilize the latest technology of H.264 High Profile video compression to store
- the largest amount of video. Systems using older MPEG video compression are not acceptable.
- The system must include at least one SDXC Card with a capacity of no less than 64GB (size)
- Class 10 (speed).
- The system must be able to use SD, SDHC, and SDXC cards with capacities up to 256GB.
- The system must have a removable 2.5" drive tray to support an optional 500GB, 1TB or 2TB
- Solid State Drive (SSD) space for expanded recording capacity.
- The system must include a lockable enclosure constructed of no less than 18GA. steel to prevent access to the storage device, power, camera connections, and all mounting screws.
- Any equivalent product / system that is proposed must be physically and functionally identical to a PRO-VISION® 8 Channel High Definition Solid State Bus Video System.

- The system shall be made entirely of new materials and shall be engineered and constructed with rugged materials to protect the system from environmental elements including shock, dust and humidity.
- The system shall be capable of recording at no less than 1080p High Definition video quality per
- camera.
- The system must be capable of recording eight (8) cameras simultaneously at the maximum
- quality and frame rate.
- The system must be capable of simultaneous recording, playback and remote access allowing
- multiple users to review video without interruption of recording.
- The system must be capable of on-board viewing, downloading and control via laptop, smart
- phone, or tablet with a wireless connection. Systems that require a hardwired connection are not acceptable.
- The system must be capable of complete setup and aiming of cameras with a web based
- interface. Systems that require the installation of setup software are not acceptable.
- The system shall be capable of operating on wide voltage range from 10-32V DC. Systems that
- require a separate power supply for operation on 24V systems are not acceptable.

#### Digital Video Recorder (DVR)

1. The DVR shall be Mil-Spec Rated: STD-810F and SAE Rated: J1455 for vibration and shock without the use of a shock absorbing mount.
2. The DVR must utilize positive locking connectors for all connections.
3. The DVR unit and locking enclosure dimensions shall not exceed: 5.6" (W) x 7.8" (L) x 1.4" (H).
4. The DVR must be capable of recording to both SD and SSD storage devices simultaneously or independently.
5. The DVR must be capable of simultaneously recording of up to 8 cameras at 1080P HD picture quality at 30fps

6. The DVR shall be capable of configuring video quality, resolution and recording speed (bit rate and frame rate) individually for each camera.
7. The DVR shall be capable of configuring a name for each camera view that can be embedded on the recorded video.
8. The DVR must have a built in multi-function LED Status Indicator for simple operation diagnostics. The status indicator must be viewable when the DVR unit is locked in its enclosure.
9. The DVR must self heat to allow operation in temperatures as low as -20°F. Systems that require an optional built-in heater or an enclosure to comply with this requirement are not acceptable.
10. The DVR must include a built in 3-axis accelerometer capable of triggering events, marking video or sending alarm notification when the vehicle exceeds a pre-determined G-force setting.
11. The DVR must be FCC approved and shall be powered by 12 or 24 VDC vehicle power supply connected by 18 gauge wire and protected from spikes, surges and reverse polarity operating between 9 and 36 VDC.
12. The DVR must meet the requirements of ISO 7637-2 "Electrical disturbances from conduction and coupling". The DVR shall provide regulated 5-volt and 12-volt power for all peripherals.
13. The DVR must have the option to turn ON and OFF at preset times during the day without the vehicle ignition signal.
14. The DVR must have the option to remain operating for a pre-determined length of time after the vehicle power is terminated, up to twenty-four hours.
15. The DVR shall be capable of pre-event recording that allows the system to record up to 60 seconds of video prior to activation of a trigger (manually, motion activation, etc.).
16. The DVR shall be capable of post-event recording that allows the system to record up to 15 minutes of video after a trigger has been completed (manually, motion activation, etc.).
17. The DVR must be capable of being set to a specific time zone.
18. The DVR must allow the user to turn Daylight Savings time on or off.
19. The DVR must have no less than 3 trigger inputs for connection to vehicle electronic signals for displaying text on the video and/or triggering of event marked video.

20. The DVR unit must have a built in USB and Network port for expandability and interconnectivity with existing vehicle systems (laptop computer, WIFI hotspot, vehicle computer, etc.).

21. The DVR must have a built in WIFI Access Point with password protection for setup of DVR and viewing of cameras. Units using external WIFI routers, bridges, or access points are not acceptable.

22. The DVR must have a built in WIFI Client for connection to an existing network for transfer of video files and remote viewing.

23. The DVR unit shall be capable of streaming live video via cellular or wireless LAN options.  
PRO-VISION® Video Systems

24. The DVR unit shall save data onto an advanced DVR system logs file to provide accurate event history for management and maintenance.

25. The DVR unit shall have the capacity to update firmware wirelessly with a laptop, tablet or smart phone.

26. The DVR unit firmware updates shall be provided at no charge to allow the most current and stable operation and allowing expandability with future products.

27. The DVR must have the capability of password protection to change the settings.

#### GPS Antenna

1. The DVR shall be able to utilize an optional GPS receiver to get data that includes no less than latitude, longitude, speed, and time.

2. The optional GPS receiver shall be a completely external all-in-one design with built in antenna for optimum reception signal strength. Units that have GPS receivers built into DVR utilizing a remote antenna will not be accepted as they are not as accurate due to signal loss on the antenna cable.

3. The optional GPS receiver shall have the ability to trigger an event by driving beyond a preset GPS coordinate geo-fence (rectangle or circle), or exceeding a preset speed limit.

4. The DVR unit shall be able to synchronize the DVR's system time by satellite using the optional GPS receiver.

#### Automatic File Transfer Software

1. Software must be able to operate on Windows 7, 8, 10, Server 2008, and Server 2012.

2. Software must run as a Windows Service to allow downloads to occur even when user is not logged in.
3. Software must be capable of transferring files to a local storage disk or to a network storage location.
4. Software must be capable of selecting for each DVR unit if all video or only triggered alarm videos will transfer.
5. Software must be capable of viewing the current status of each unit on a Windows application.
6. Software must have a configurable web service that will allow a user from a remote computer to observe the connection and transfer status from a remote computer without installing software.
7. Software web service must be able to limit access to specific preconfigured Windows user accounts.
8. Software web service must have a function to allow requests of video files from specific time periods on a specific unit that are not configured to be automatically transferred.
9. Software request function must allow the user to set an email address for notification of request completion.
10. Software request function must allow the user to set a desired download location that is different from the normal video download destination.
11. Software must be capable of configuring an SMTP email server with customer specific email outbound address.
12. Software must be capable of sending out email alerts when file transfer is complete.
13. Software must be capable of sending out an email alert each time a video file request is completed.
14. Software must log events for each DVR during each of the following situations: Connected, Disconnected, Transfer Complete, and Request Complete.
15. Software must maintain a log of all software functions to verify operation and allow simple troubleshooting if necessary.

16. Software must be capable of downloading video files from both the 700 Series DVR and 800 Series DVR products from PRO-VISION.

#### HD Night Vision Dome Camera

1. Interior Dome Camera must have no less than a 130° field of view.
2. Interior Dome Camera must use a progressive scan high resolution CMOS image sensor no less than 3 mega pixels
3. Interior Dome Camera must have capability of recording up to 1080P video at 30 frames per second (fps)
4. Interior Dome Camera must have a built in microphone with windscreen and noise canceling technology. Audio level must be adjustable for ideal recording volume.
5. Interior Dome Camera must have built in automatic night vision IR LED's for low light illumination, with a minimum illumination of 0.05 lux with IR off, and minimum illumination of 0 lux with IR on.
6. Interior Dome Camera night vision must be able to be disabled in the DVR interface.
7. Interior Dome Camera housing must be all aluminum construction with a glass lens, no plastic housings or lens accepted.
8. Interior Dome Camera must be adjustable after installation for 360° horizontal, 180° vertical, and 360° rotation of ball to allow proper aim adjustment in all mounting positions.
9. Interior Dome Camera must have a single secure quick release connector for power and data communication, cameras utilizing multiple connectors or non-locking connectors are not accepted.

#### HD Forward Facing Camera

1. Interior Forward Facing Camera must have no less than a 130° field of view.
2. Interior Forward Facing Camera must use a progressive scan high resolution CMOS image sensor no less than 3 mega pixels
3. Interior Forward Facing Camera must have capability of recording up to 1080P video at 30 frames per second (fps)
4. Interior Forward Facing Camera must have a built in microphone with noise canceling technology.



5. Audio level must be adjustable for ideal recording volume.
6. Interior Forward Facing Camera must operate with a minimum illumination of 0.05 lux.
7. Interior Forward Facing Camera housing must be all aluminum construction with a glass lens, no plastic housings or lens accepted.
8. Interior Forward Facing Camera must include two mounting brackets for installation, one with 3M® VHB® Adhesive for glass mounting, and a second with screws for mounting to a metal or plastic surface.
9. Interior Forward Facing Camera bracket must be adjustable after installation for 90° vertical aim adjustment to provide the best view out the windshield regardless of windshield angle.
10. Interior Forward Facing Camera must have a single secure quick release connector for power and data communication, cameras utilizing multiple connectors or non-locking connectors are not accepted.
11. Interior Forward Facing Camera must be a small sized camera that is no larger than 1" (W) x 1" (H) x 1.75" (D) to provide minimal obstruction out the windshield.

#### HD Waterproof Night Vision Side Camera

1. HD Waterproof Night Vision Side Camera must have no less than a 45° field of view.
2. HD Waterproof Night Vision Side Camera must use a progressive scan high resolution CMOS image sensor no less than 3 mega pixels.
3. HD Waterproof Night Vision Side Camera must have capability of recording up to 1080P video at 30 frames per second (fps).
4. HD Waterproof Night Vision Side Camera must have built in automatic night vision IR LED's for low light illumination, with a minimum illumination of 0.05 lux with IR off, and minimum illumination of 0 lux with IR on.
5. HD Waterproof Night Vision Side Camera night vision must be able to be disabled in the DVR interface.
6. HD Waterproof Night Vision Side Camera housing must be all aluminum construction with a glass lens, no plastic housings or lens accepted.
7. HD Waterproof Night Vision Side Camera must have a powder coated aluminum mounting bracket with a side profile less than 2.5 inches.

8. HD Waterproof Night Vision Side Camera must be adjustable after installation for 180o horizontal rotation.

9. HD Waterproof Night Vision Side Camera must have a single secure quick release connector for power and data communication, cameras utilizing multiple connectors or non-locking connectors are not accepted.

10. HD Waterproof Night Vision Side Camera must be waterproof to IP67K rating.

#### HD Waterproof Night Vision Camera

1. HD Waterproof Night Vision Camera must have no less than a 130° field of view.

2. HD Waterproof Night Vision Camera must use a progressive scan high resolution CMOS image sensor no less than 3 mega pixels.

3. HD Waterproof Night Vision Camera must have capability of recording up to 1080P video at 30 frames per second (fps).

4. HD Waterproof Night Vision Camera must have built in automatic night vision IR LED's for low light illumination, with a minimum illumination of 0.05 lux with IR off, and minimum illumination of 0 lux with IR on.

5. HD Waterproof Night Vision Camera night vision must be able to be disabled in the DVR interface.

6. HD Waterproof Night Vision Camera housing must be all aluminum construction with a glass lens, no plastic housings or lens accepted.

7. HD Waterproof Night Vision Camera must have a powder coated aluminum mounting bracket with a side profile less than 2.5 inches.

8. HD Waterproof Night Vision Camera must be adjustable after installation for 180o vertically rotation.

9. HD Waterproof Night Vision Camera must have a single secure quick release connector for power and data communication, cameras utilizing multiple connectors or non-locking connectors are not accepted.

10. HD Waterproof Night Vision Camera must be waterproof to IP67K rating.

### Viewing Software

1. The viewing software shall be included in the system price at no extra charge.
2. The viewing software must have a timeline to show the times of recordings for up to 8 cameras.
3. The viewing software must allow the playback of up to eight cameras simultaneously.
4. The viewing software must allow the user to select the audio track independent from the video viewing mode.
5. The viewing software must allow playback of video in a single camera, two camera, quad screen or 9 camera mode.
6. The viewing software must display Bus ID, time, date, event triggers, GPS information and speed.
7. The viewing software must display the video files time, date and vehicle ID.
8. The viewing software must display the date, time, vehicle ID of each event trigger.
9. The viewing software must allow the fast forward playback up to 16X normal playback speed.
10. The viewing software must allow the slow motion playback of video as slow as 1/8 of normal playback speed.
11. The viewing software must allow the capture of a still image at any point in a video.
12. The viewing software must have a button to copy the currently viewed video to the computer with a single click.
13. The viewing software must have a button to allow multiple selected video files to be copied to the computer with a single click.
14. The viewing software must allow a still image to be saved as a JPEG file.
15. The viewing software must allow a still image with integrated GPS Map to be saved as a JPEG file.
16. The viewing software must allow the selection of a single day of video and the playback of all videos consecutively from that selected day.
17. The viewing software must allow the selection of a particular day of video from a drop down list that includes all days of video that are recorded.

18. The viewing software must allow the search for video by a specific date and time.
19. The viewing software must allow video to be played from a timeline for a selected day.
20. The viewing software must allow the selection of individual channels of available audio.
21. The viewing software must allow the playback of video with the GPS Map of the vehicle location integrated with the video with a properly connected internet connection.
22. The viewing software must allow the user to skip through a day of video in preprogrammed increments.
23. The viewing software must allow the user to skip within each clip to the desired frame.
24. The viewing software must allow video playback in a full-screen mode with controls.
25. The viewing software must allow a single camera view to be selected from a quad view and then video playback in a full-screen mode with controls
26. The viewing software must allow the viewing of all Alarm Video for a selected day.
27. The viewing software must allow the viewing of all system functions performed by the DVR.
28. The viewing software must operate on Microsoft Windows XP, Vista, 7, 8 and 10.
29. The viewing software must be able to automatically connect to the internet and check for updates and notify the user when available.

#### System Warranty and Support

1. The system and accessories must be warranted for no less than 5 YEARS.
2. The included SD Card must have no less than a LIFETIME WARRANTY from the system manufacturer.
3. The system must include toll free access to customer support by the system manufacturer.
4. Technical Support must be provided over the phone at no charge.
5. Customer service, technical support, warranty claim and repair facilities must be located in the United States.