



MSD of Washington Twp

Request for Proposal
Bus Camera Project

Version 1.1

By:

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General System Overview

The following is a request for proposal for bringing all of the current fleet of District buses into a District Standard for Security Cameras that are to be installed and maintained on buses. At the conclusion of this project we would want all of the buses to have the ability to enter into bus lot and via the District's WiFi network and automatically download the security camera footage from each of the buses to a centralized server. The onboard NDVR should have the local capacity to store enough footage for a day's worth of video before it returns to the hub to download the video. Once the video has been downloaded to the central server that video can be overwritten the next day.

MSD of Washington Township currently utilizes Avigilon Control Center as a centralized system for its security camera storage. We would like to continue to utilize this platform for ease of management and familiarity with the product. The Avigilon Control Center can work with other manufacturer cameras, and it is the responsibility of the vendor formulating the proposal to check the proposed cameras to ensure they are supported.

Your proposal is to include all the security cameras, mounting hardware, installation services, local NDVR, storage device and WiFi enabled units. Your proposal shall be all inclusive including any and all shipping costs, storage fees and any additional equipment needed or rented to successfully complete this project. MSD of Washington Township is Tax Exempt and your proposal shall not include any sales taxes.

MSD of Washington Township is currently constructing the Bus Lot and the expected completion date is Summer of 2023. It will include canopy units with Ruckus Outdoor Wireless Access Points (WAP), two (2) per canopy that will be utilized for the buses to connect to in order to download the video recordings. The Wireless Devices within the buses are preferred to be 802.11AC devices operating on the 5Ghz band. They are not needed to provide wireless service to the occupants of the buses and they are not to be cellular enabled.

No proposal can be submitted that includes equipment or components for equipment from companies deemed to provide a national security risk as defined by FCC order 19-121 and 47 CFR 54.9.

PART 1 – SCOPE OF WORK

The following are requirements that must be met in order to submit an RFP to be considered. If your RFP submission does not contain equipment that meets or exceeds the requirements MSDWT reserves the right to disqualify your submission based on not meeting the requirements set forth.

Proposals shall include three (3) prior projects performed by the vendors that are of the same/similar scope and size of this project. Must contain in the least one (1) Indiana customer.

Installation should occur during the summer months when bus utilization is at it's lowest. A timeline of installation and schedule of installation should be included in your proposal including details as the estimated time for installation on average for a bus. For the actual installation the vendor is to schedule with the Transportation Department the access to the necessary buses to ensure that the needed buses for Summer School busing is always obtained.

Hardware Warranty

A minimum one (1) year of warranty for all of the equipment, optionally five (5) years of warranty can be provided as an alternative option in your proposal

All shipping costs for equipment replacement must be included the warranty and the hardware warranty is to be NBD.

Advance replacement for all parts are to be provided for the first year of warranty.

Warranty period is not to start until the project installation has been completed on all of the buses and has been deemed completed and fully tested by the MSD of Washington Township Project Manager assigned to this project.

Hardware failure during the first year is not to exceed 20% of the total project.

RFP/Bid Submitters

Must include ALL shipping/delivery costs within bid submission and cannot charge sales tax, tax exempt certificate will supplied to the awarded bidder.

All vendors, contractors and sub-contractors that are onsite at any of the MSDWT buildings are required to be appropriately dressed, recommended wearing company shirts with logo and have a badge clearly visible with the employee's picture on it. Selected vendor will also need to adhere to the District's COVID requirements and shall follow all guidelines that are set forth for outside vendors when on MSDWT properties. Full payment is not to be expected until the entire project has been completed, tested and signed off by the MSDWT Project Manager, installation is completed and the equipment has entered production state. Labor, configuration and warranty/support payment will not be made until project has been signed off.

MSDWT will provide a list of existing equipment that is installed on all of the bus fleet.

All Bids are to be mailed or delivered to: H Dean Evans Community and Educational Center located at 8550 Woodfield Crossing Blvd / Indianapolis, IN 46240 before Friday March 11th 2022 at 3:00PM EDT. Bids are to be sealed and clearly labeled on the outside: "BID DOCUMENT for MSD of Washington Township Bus Camera Project"

Vendors are to submit two (2) copies of their proposal in binded format. The first page of the submission must include an overall cost of the project including all costs for the project’s proposal included within. Both proposals, any addendums must be signed by the submitting vendor.

All prices submitted within the vendors proposal are to remain locked throughout the project and no prices for hardware, software, licenses, consumables and labor costs shall increase during the course of the project.

Certified MWBD vendor (Minority and Women-owned Business) must include certification in submittal.

PART 2 - RFP PROCESS

MSD of Washington Twp. is providing prospective vendors with a list of existing equipment for all of the bus fleet.

MSD of Washington Twp. reserves the right to cancel this project and void all proposals in the event that funding is not made available for this project or the District discontinues the project in its entirety.

No electronically submissions will be permitted.

Any concerns or questions relative to this RFQ should be directed to bengland@msdwt.k12.in.us and mkneebone@msdwt.k12.in.us no later than 4:00PM EST Wednesday, February 25th 2022. Questions will NOT be accepted after this date and time.

- Phone Calls with questions will not be taken.
- If there are any Questions they will be posted with the question and the response to the District’s Website. It is the sole responsibility of potential vendors to monitor the District’s Website for Questions and Answers and any additional information or updates that may be posted.
- The above measures are to insure equality and transparency.

PART 3 - RFP SUBMISSION

The following information is to be used when submitting a proposal for this project.

Final Submittals:

- Electronic e-mail submission will not be accepted.
- Due date for the submission of proposal are due to be received no later than Friday March 11th 2022 by 3:00PM EDT to:
 - H. Dean Evans Community and Education Center
 - 8550 Woodfield Crossing Blvd
 - Indianapolis, IN 46240
- Must include two (2) identical copies of proposal.

- Cost Schedule listed out by model number(s).
- Must include applicable certificate(s) stating that the vendor is MWBD certified.
- Submission must be sealed and clearly labeled on the outside **“BID DOCUMENT for MSD of Washington Township Buses Security Camera Project”**.
- Submitting a proposal after this deadline will be sufficient cause to reject your proposal.

PART 4 – CURRENT EQUIPMENT

This is the list of currently installed equipment

Buses	Already Wireless Capable	Already have Security Cameras
42 (22 current buses, 20 new buses)	No	4 low def to a non-wireless DVR
113	Yes, but need external antenna	4 high def to a non-wireless DVR
20 (Summer 2022)	Yes	To a non-wireless DVR

Qty	Type of Bus
3	Coach bus with no stop sign arms
14 (12 current buses, 2 new buses)	Mini Bus
138 (120 current buses, 18 new buses)	Standard bus length included handicap buses

The Vendor shall conduct a detailed survey of each School Bus type and develop a vehicle layout plan documenting the location and “field of view” for each vehicle type in the fleet based on camera location and placement of camera that will be included in their proposal. The Vendor does not need to differentiate between a standard bus with the engine in the rear versus an engine that is in the front.

PART 5 –EQUIPMENT REQUESTED

The following is a list of expected future equipment to be installed on the buses.

Equipment	Qty	Type
5Ghz Wireless with external antenna	1	802.11AC / 5Ghz capable of connecting to MSDWT SSID assigned with passkey. External antenna is to be securely mounted to the roof of the bus.
Onboard NDVR	1	Onboard NDVR, wireless connected, capable of handling all cameras installed and removable storage capable if wireless fails.
Interior Cameras	3	Drivers location with coverage of the bus driver, inside of the front door and a portion of the main aisle. Middle of the bus with coverage of 3+ rows. Back of the bus with coverage of 3+ rows and the aisle.
Exterior Cameras	2	Stop arm camera looking to the front and looking to the rear.
Optional Cameras	2	Front of the bus, what the driver would see. Door side camera 180°
District Software	Qty	Type of Software
Server Software	1	Server software that will coordinate with the downloading and archiving of the buses security camera video footage if the Districts Avigilon System cannot be utilized.
Client Software	5	Client software licensed if the Server software is client based for the viewing of the video retrieved from the buses.

In addition to the above equipment, the vendor will need to provide the minimum server storage specs, RAM, processor and dedicated NICs.

All hardware, software, licenses and labor shall be warrantied for a minimum of one (1) year with the start of the warranty beginning at the conclusion of the project. A 'go live' date will be determined by the vendor and the District's project manager of when the system will be operational across the fleet and this will start the warranty period. If any of the hardware, software, licenses and labor have a warranty period of greater than one (1) year that warranty period is to be applied to this project.

Training shall be included within the proposal which is to include the client software, server software and for the mechanics. Training should include the necessary knowledge transfer so the District can successfully maintain the Server and Client software and the mechanics to ensure the wireless, the cameras and NDVR are operational. All associated cost, including cost of training, travel to and from installation site were hands on training can occur, meals, lodging, special tools needed for diagnostic purposes, shall be at the vendor's expense.

PART 6 – CAMERA/NDVR SPECIFICATIONS

- NDVR and Cameras are to be able to operate off a 12 volt power source.
- Cameras are to be color surveillance cameras.
- NDVR is to have enough storage capacity for the required and optional cameras for a period of up to 8hrs of recording within a day and the ability to store a weeks' worth in the event the wireless download is not working.
- NDVR is to be able to have the required and optional cameras connect to it and should not be limited to only the required cameras. An NDVR with a maximum allowed camera connections of five (5) cameras will not be allowed as it prevents the District from future growth of adding additional cameras or going with the optional cameras referenced within this document.
- NDVR shall record video footage in a tamper proof recording format. Recording data shall be deemed acceptable as evidence in legal proceedings. Recordings should also display the camera's name and direction to ensure unquestionable evidence the camera footage is from the cameras and bus that it was retrieved from. Recordings should also be time and date stamped in Video playback.
- Cameras are to have the ability to auto focus, especially at high Sunlight and Night recording and not be compromised.
- Cameras should have Infrared or Night recording capabilities that display good imaging in the dark or with low light available.
- Camera system must not come with a mountable monitor for the Bus Driver to use while operating the vehicle.
- Cameras must be able to begin recording when the ignition switch has been turned on and the engine is running.
- The Camera system hardware and software should be resistant enough to handle the sub zero to triple digit temperature that we experience in Indiana.
- External and Internal cameras are to be securely mounted.
- The selected vendor shall install all wiring and cabling in a manner that makes it inaccessible during normal operations and all wiring shall be hidden from view.
- The wiring shall be uniformly color coded, tagged and secured.
- Camera System shall be tolerate having power removed suddenly with no negative effect on the recording system, system hardware, operating system, stored data/video/Audio, or on the system's ability to function normally once the power is fully restored.
- Exterior cameras are to be secured and protected from the environment as well as road debris impact.
- Exterior cameras located on the driver side of the bus that are required are to located in a position were the stop arms are not obstructing the view of the camera.
- The optional 180° exterior camera on the door side shall not be further back than the midpoint of the bus and not located right next to the door to ensure adequate coverage of the door entrance and the door not impacting the majority of the view when it is in an open position.

Cameras are to be set to record when there is activity in its line of sight, and when the engine is operating. They are not to be operational when the bus is sitting in the bus lot with the engine not operating. District standards for video camera settings are as follows and the installer shall adjust the default camera settings to meet these standards.

- Format: H.264

- On Motion Background Image Quality: med-high
- High Bandwidth Stream:
 - Image Rate for live and recorded video: 10ips
 - Image Quality: 70%
 - Maximum Bit Rate: 12,000 kbps
 - Minimum Resolution: 2048x1536
 - Keyframe Interval: 30 frames
- Low Bandwidth Stream:
 - Image Rate for live and recorded video: 8ips
 - Image Quality: 70%
 - Maximum Bit Rate: 1,200 kps
 - Minimum Resolution: 640x480
 - Keyframe Interval: 30 frames
- On Idle Scene (when the bus is idle for a period greater than two (2) minutes):
 - Post-Motion Delay: 5 seconds
 - Image Rate: 1ips
 - Max Bit Rate: 12,000 kbps
 - Keyframe Interval: 5 frames

PART 7 – EQUIPMENT PROVIDED BY DISTRICT

The following is the equipment that the buses will connect to that are provided by the District but the Vendor will need to ensure compatibility with the equipment they are proposing.

Model of Equipment	Description
Ruckus Wireless T610 or equivalent	Outdoor 802.11ac Wave 2 Wi-Fi Access Point
HPE DL380/385 or equivalent	HPE Proliant DL Series Server for security camera video file storage.

PART 8 – VENDOR REFERENCES

The Vendor must submit with their proposal three (3) prior installations that they have performed and completed that are of similar size and scope of this project. There must be one (1) reference that resides within Indiana and must be a K-12 institution. The remaining two (2) can also be from Indiana and a K-12 institution or a K-12 institution from a nearby State.

PART 9 – RESPONSE FORMAT

Responses should include the following:

- Applicable items should include all related software and hardware components that enable the functionality of the equipment (including any necessary mounting brackets, software licenses, multi-year licenses, and basic maintenance).
- If applicable, vendor is to specify all fees, shipping charges, fees, surcharges and contingency fees for eligible equipment.
- If applicable, vendor is to specify the manufacturer’s warranty provided as an integral part of an eligible component without separately identifiable cost.
- Any ongoing subscription pricing must be listed separately.
Vendors shall list the optional cameras as two (2) separate line items in the event that the District should choose to only go with one (1) of the additional cameras. Labor costs for each additional camera can also be a separate line item or can be included in the cost for each optional camera. Length of the price locked shall also be noted.

Your response is to include the following information:

1. Line-item pricing for each item listed in PART 6 – EQUIPMENT REQUESTED. Any discounting applied to your proposal must be reflected at the line-item level.
2. How long the pricing per line item will be locked in the event there is additional buses procured than what is expected.
3. In the case of proposed equivalent products, a thorough technical description of how each product from the manufacturer being bid meets or exceeds each of the required functionalities and specifications of the product listed herein, and is compatible with equipment on site. Failure to provide this information will be sufficient cause to reject/disqualify your proposal.
4. Information outlining your company’s certifications and connections regarding the manufacturer’s equipment being bid, and length of time your company has provided equipment from the manufacturer being bid.
5. Three (3) reference sites where your company has performed a similar installation of the equipment being bid, including business name, contact name and contact information. Requirements for the references are covered in PART 8 – VENDOR REFERENCES.
6. Both copies of the BID are to include a signature from a signing partner of the submitting company.
7. A separate line item to include the material and labor for adding the addition OPTIONAL cameras to the overall BID.
8. Proof of Insurance and/or Bond that the submitting vendor can fully complete the project.
9. Field of view drawings showing the camera coverage in each of the models of the buses.