



Q & A

School Bus Security Camera System

Q1: As most leading suppliers of surveillance systems built specifically for the school bus industry offer DVR's, is this what you mean by "NDVR"?

A1: NDVR stands for Network Digital Video Recorder, so while a DVR can be both networked and stand-alone, the NDVR is network based. They are also known as NVR which is a Network Video Recorder and the 'Digital' is just assumed because it transfers over the network.

Q2: Today, most manufacturers of School Bus Surveillance Systems primarily utilize analog high definition cameras (only capable of 720P (1280x720) or 1080P (1920x1080)) and are designed to record at a user selectable frame rate (fps), quality setting and resolution (720P or 1080P).

A2: Please specify within your proposal the maximum and minimum resolution that your cameras can record at.

Q3: Most School Bus Surveillance Systems are designed with a feature called "Event" recording. During an "Event", frame rate and quality settings can be set higher than normal recording. "Event" recording is most commonly determined by the driver pressing an "event marker button" located in the driver area and the "Event" recording continues for a user selectable amount of time. Are you interested in having an Event Marker Button?

A3: MSDWT would consider this as an add-on option as long as we will have the ability in the future to disable this function if it is later found to be a distraction for the drivers.

Q4: Another item that most Bus Surveillance System providers offer is something we refer to as an "Sensor/Options Harness". The Sensor/Option Harness is designed to connect to things such as turn signals, red flashers, amber flashers, hazard flashers, brakes, door open etc...and the status of these are visible onscreen while reviewing the recorded video. Are you interested in having a Sensor/Option Harness?

A4: MSDWT will not require these, however the proposer can include these as an option within their proposal.

Q5: In addition, another item to consider is a GPS antenna. A GPS antenna will allow an interactive map within the software to show where the bus is on the route while watching the recorded video. A great feature of this is the map is interactive allowing the person reviewing the video to "click" on the map and the recorded video will automatically go to

that time in the recording. The map will display the whole bus route for the day. The GPS antenna also provides the speed of the bus, which is shown on the screen when reviewing the video. Are you interested in having a GPS Antenna?

A5: MSDWT will not require these, however the proposer can include these as an option within their proposal.

Q6: Also, in most cases it is not possible to download a full day of video recording from every bus when they come back to the lot. The download speed through the lot based WiFi simply can't accomplish downloading this amount of data from all the buses. What is normally done is the downloading of "Event" video. For this reason, most customers require the DVR to store all the video for 3-4 weeks. For video you may want to review but was not automatically downloaded because it wasn't an event, the software also allows a user to access any recorded video stored on the DVR and download it. This is not a limitation due to our system design, it is a limitation of the WiFi. Is this acceptable?

A6: Most buses run three hours in the morning, and three hours in the afternoon. 15-20 buses run throughout the day from 5am-7pm (shuttles, field trips, etc.). The DVR/NVR unit that is on the bus is to be able to store at minimum 2 weeks of video. With the majority of the buses frequenting the bus lot the amount of video it would need to transfer would less than 3hrs of video.

Q7: We are not sure if anyone can utilize your Avigilon Control Center because most DVR's record video in a proprietary format and the playback software has to be capable of playing back the video in proprietary format. In addition, the software for the DVR has special functionality and search features that the Avigilon Control Center software probably doesn't have.

A7: MSDWT understands if the Avigilon video servers cannot be utilized and spoken within the document that the proposer shall include with their proposal the hardware specifications for the server if the software can be installed on any x86 server platform. If the server software requires to be installed on a proprietary appliance from the manufacturer then you shall include that appliance on your proposal.

Q8: *Regarding p.5 Part 4 Qty - Handicap Buses: Will the camera views for the handicap buses be the same as the standard buses?

A8: Yes.

Q9: Are these to be an all-IP camera solution or can we utilize AHD and IP camera on one DVR?

A9: Please specify within your proposal the maximum and minimum resolution that your cameras can record at.

Q10: (Page 3) RFP/Bid Submitters: “MSDWT will provide a list of existing equipment that is installed on all of the bus fleet.” *Will the Vendor be required to remove existing systems?*

- ***If yes, what would MSDWT like the Vendor to do with the removed equipment and existing holes (if new cameras differ from existing locations)?***
- ***Will a cut & tuck of existing cabling be acceptable or is complete removal required?***

A10: Vendor will remove existing equipment that is visible. A cut & tuck of existing wire will be acceptable.

Q11: (Page 5) Part 4 – Current Equipment

- ***How many buses will this project be for?***
- ***What is the total number of buses we are required to quote?***
- ***For each individual bus type, what is the desired number of cameras and what are the desired views for each?***

A11: MSDWT understands Part 4 on page 5 may be a little confusing as the 20 new buses coming by Summer 2022 were listed twice in the first table. We have cleared this up with Addendum 1, please see this addendum for the actual numbers that we will have in service by the start of the 2022-2023 School Year. In regards to the desired number of cameras that is covered under Part 5, the Coach and a portion of our short buses are exempt from the signal arm cameras as they do not have the signal arms. The minimum amount of cameras on a standard bus with signal arm is (5) five and also listed is (2) two optional cameras that can be included in your proposal.

Q12: (Page 9) Part 9 – Response Format, #8.: “Proof of Insurance and/or Bond that the submitting vendor can fully complete the project.” *Is a Certificate of Insurance sufficient or is a bond also required to be submitted with our proposal?*

A12: Certificate of Insurance or a Bond, if you have both you can provide both, if you only have one you will only be able to provide one, but you must provide at least one.

Q13: Are both large and small buses requiring a Stop Arm Camera?

A13: The district will have 128 buses (large and small) with stop arms, and 9 buses (coach and small) without stop arm cameras.

Q14: Based on the current installed equipment, how many of the buses are getting new bus camera systems? Is all existing equipment to be replaced?

A14: The existing cameras can only remain if the installer will extend the warranty period to be inline with the new cameras being installed and they must be from a manufacturer that the proposer is representing and installing the same cameras in the buses that do not have these existing cameras.

Q15: Are Proposers to also quote on removal of existing equipment?

A15: Yes, and if the proposer does not work with an e-Cycling partner that specializes in recycling of electronics then the District will arrange for the removed equipment by the installer to be properly disposed of to avoid a landfill.

Q16: Could MSD Washington Township please provide a desired quantity of cameras for each bus type?

A16: In regards to the desired number of cameras that is covered under Part 5, the (3) Coach buses and (6) small buses are exempt from the signal arm cameras as they do not have the signal arms. The minimum amount of cameras on buses with a signal arms is (5) five and also listed is (2) two optional cameras that can be included in your proposal.

Q17: How many buses are Proposers to quote on?

A17: MSDWT understands Part 4 on page 5 may be a little confusing as the 20 new buses coming by Summer 2022 were listed twice in the first table. We have cleared this up with Addendum 1, please see this addendum for the actual numbers that we will have in service by the start of the 2022-2023 School Year.

Q18: Is the wireless required for the existing bus lot or for the new lot that is being completed for 2023?

A18: The new lot will be outfitted with Ruckus T650 Outdoor access points with a 2.5Gb connection back to the Transportation building. These are commercial grade equipment that can handle 200 simultaneous connections. To benefit from these Access Points and their performance it is advised to have 802.11AC installed on the buses, 802.11b/g is not suitable and runs at 2.4Ghz.

Q19: Please provide the address where the buses will need bus lot wireless? And desired or existing location of Access Points?

A19: For the 2022-2023 school year, buses will need to connect wirelessly at the three locations below in order to upload footage:

- Eastwood Middle School - 4401 East 62nd St., Indianapolis, IN, 46220

- North Central High School - 1801 East 86th St., Indianapolis, IN, 46240
- Westlane Middle School - 1301 West 73rd St., Indianapolis, IN 46260

At the start of the 2023 school year, all buses will be parking at the new centralized bus parking lot, and will need to connect wirelessly when parking in their stall in order to upload footage. A layout of the new centralized bus lot will be included in the Addendum.

- Transportation Center - 1815 East 86th St., Indianapolis, IN 46240

Q20: Is a bond required and if so, how much?

A20: Certificate of Insurance or a Bond, if you have both you can provide both, if you only have one you will only be able to provide one, but you must provide at least one. The amount of the bond will need to be 20% of your proposed project cost.

Q21: Is the NDVR specifically requested because you wish to have IP cameras?

A21: The NDVR (also known as NVR) is specifically requested to offload the day's stored video when the buses return to the lot which will be done twice a day.

Q22: Installations using wireless [WIFI network] transfer of video typically transfer marked events, requested video clips and auto generated stop arm events. On board storage is scaled to hold 2-4 weeks typically. To download all video every day from a large fleet is very time consuming [Highly likely not possible in the time available] and requires massive storage. With over 2000 customers, we know of no school district with this requirement. This is different than a building video solution. You will never want to review all video but will want to retrieve specific clips and have a system that automatically downloads specific events. Can you accept a more conventional storage and retrieval methodology?

A22: We estimate that a typical bus footage will be no more than 3hr and based on the quality of the video will determine the size of the file. Our Ruckus Wireless Access Points will be able to handle 200 connections per AP with a backhaul of 2.5Gb speed. The buses will be parking at the Bus Lots twice a day, after the AM runs and after the PM runs, so each time they enter the lot and the videos from each of those runs could be downloaded. The District is also looking at increasing the AP at each of the Elementary and Middle Schools when the buses are in the slot would be another opportunity to download the videos.

Q23: May we be allowed to inventory the Transportation fleet to gather brand/make/model information as well as suitability for future purposes so as to determine the best response to the bid specifications and number of cameras needed?

A23: A school bus will be available for viewing at the MSDWT Transportation Center on Thursday, March 3, and Friday, March 4, from 10:00am-12:00pm. During this time you will be

able to view our current radio and camera systems that are installed on all buses. MSDWT staff will not be available for questions during these times.