Product Description and Minimum Specifications:
WiFi Wireless System
R1-June 2013

The below specifications are not intended to limit competitiveness in similar products, rather they are intended to establish a standard of quality and desired features in order to ensure that the needs and requirements of the school district are met.

Detailed specifications are as follows:

WiFi Wireless and Auto Wake

- The WiFi based, wireless system, used to access a mobile DVR system located on a bus must provide functionality for a user to power up and subsequently power down the mobile DVR (and cameras) and WiFi radio without having to physically be on the bus.

- The system to remotely power up the mobile DVR (and cameras) and WiFi radio located on a bus must be architected so that it can function with busses located in more than one bus yard. There should be no architectural limitation to the number of bus yard that can be supported.

- The system to remotely power up the mobile DVR (and cameras) and WiFi radio located on a bus must be architected so that there are no inherent architectural limitations to support up to 65,000 busses located in any one yard that can be controlled.

- The system to remotely power up the mobile DVR (and cameras) and WiFi radio located on a bus shall utilize low power RF and standard TCP/IP communications between bus yards and system components in order for the system to be implemented.

- The system shall incorporate a server and client applications that allow a user to do the following:

    o Indicate if a Bus is in the bus yard
    o Indicate if a Bus is not in the bus yard
    o Indicate the state of the Mobile DVR and WiFi radio (on or off)
    o Turn on the Mobile DVR and WiFi radio
    o Turn off the Mobile DVR and WiFi radio

- A user shall be able to configure the default amount of time that a mobile DVR (and cameras) and WiFi radio located on a bus shall be powered on for when a user requests the equipment to be powered on. The time shall be configurable between 5 minutes and 4 hours in 5 minute increments configurable on a user by user basis.

- The system shall ensure that if a mobile DVR (and cameras) and WiFi radio located on a bus has been turned on via the Remote Power Control System and then leaves radio coverage of the system that the powering of the equipment will follow the state of ignition line and record extend delay timer (or other on off controls) and not be put into a state that makes the equipment to behave in different manner.

- There shall be no architectural limitations as to the number of simultaneous users supported.

- Equipment used to implement the remote power control functionality on the bus shall enter a low current consumption state (draw less than 20mA) when the mobile DVR and WiFi are not being activated (turned on) by the Remote Power Control System.

- There shall be no architectural limitations as to the number of busses being controlled at any time.

- The server application must run on the following (32 bit or 64 bit) operating systems; Windows 7, Windows 8, Windows Server 2003, Windows Server 2008 or Windows Server 2012.

- The client application must run on the following operating systems: Vista, Windows 7 and Windows 8.

- The WiFi portion of the system must utilize industry standard 802.11N in the unlicensed 5 GHz band.

- The wireless must have an option to view the video located on the DVR's storage located in a bus via a handheld device (iPhone or iPAD) over WiFi.

- The host software supplied with the WiFi System shall allow the following functionality
  - Downloading of previously recorded video found on a DVR in a vehicle including GPS and Sensor Data
  - Play back of previously recorded video found on a DVR in a vehicle including GPS and Sensor Data
  - Play back live streaming of live video found on a DVR in a vehicle including GPS and Sensor Data
  - Remotely configure of the DVR
  - Remotely upgrade the DVR firmware
  - Supply a web based client and a Win 32 client to support the above functionality.
  - The web based client must operate on Widows Internet Explorer
  - The Win 32 Client must operate on the following operating systems
    - Windows Vista
    - Windows 7
    - Windows 8
  - Scheduling the automatic downloading of previously recorded video including GPS and Sensor Data
  - Scheduling the automatic downloading of video data that has been marked with the driver alter button or selected sensors or other events such as speed, G force or a geo fenced are.

- The host server software supplied with the WiFi System shall must run on the following (32 bit or 64 bit) operating systems; Windows 7, Windows 8, Windows Server 2003, Windows Server 2008 or Windows Server 2012.

- Support the future upgradeability to support the live streaming of video via a cellular connection.

- The Access Point shall support 802.11N in the unlicensed 5GHz band

- There shall be antenna options for the Access Point that includes but not limited to the following:
  - Omni directional antennas
  - Directional high gain antennas

- The final selection of antennas for the Access Points shall occur after a RF site survey has been completed in order to ensure optimal coverage.

- It shall be able to configure an Access Point to be a repeater so that radio coverage can be easily extended without having to require a network connection to the Access Point that is providing the extended RF coverage.