GPS Review
Board Workshop
January 11, 2017

Review of GPS

- Description of Function
- Gap Analysis (Actual Need)
- Start-Up and Annual Cost
- Strengths
- Areas of Opportunities
- Desired and Expected Outcomes
- Angst from staff and resolutions

Description of Function

❑ <u>Insight into what is happening in "real time" improves safety</u>

  ✓ constant communication with drivers coupled with exact map location

  ✓ monitor driver performance and defend against unfounded complaints

  ✓ react immediately in order to manage any situation promptly

  ✓ provides peace of mind to both the transportation team and the parent

❑ <u>Increased efficiency</u>

  ✓ Integrating GPS data with our Bus Planner software

  ✓ Optimal routes save time and money

  ✓ Student ridership tracking data

    ➢ Transforms the way we prepare our transportation operation planned routes

    ➢ Creates student schedules

    ➢ Provides detailed reports validating ridership FTE numbers

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Gap Analysis

❑ <u>Where we were :</u>
- ✓ Unable to accurately answer questions/complaints concerning:
  - ➢ Where is the bus – it didn't show up – driver doesn't know route
  - ➢ Bus did not stop for kids at bus stop, at a stop sign, RRX, etc.
  - ➢ Bus being driven dangerously (speeding, swerving, harsh accelerating etc.)
  - ➢ Bus sitting where it shouldn't be – idling excessively

❑ <u>Where we are:</u>
- ✓ Real time data on bus location and status
  - ➢ Accurately determine if bus is following prescribed route
  - ➢ Concrete data on bus position/configuration if involved in accident
  - ➢ Data to support disciplinary action/additional training required
- ✓ Electronic verification of pre-trip/post-trip bus inspection
- ✓ Integration with Bus Planner software results in more efficient bus routes

Transportation has traditionally maximized results utilizing existing resources. GPS has provided us with another tool to further improve our performance and Elevate our Safety, Service, and Savings for Clay County Schools.

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Start up and Annual Cost

Qualifies as an enterprise resource software, so able to fund with capital dollars – no operational funds are used.

FY 16/17	$0.00
FY 17/18	$136,944
FY 18/19	$136,944
FY 19/20	$136,944
FY 20/21	$136,944
	$547,776

Strengths (functions working well)

- ❑ <u>Leadership</u>
  - ✓ Access to numerous operational and safety reports to use for training, accident investigations, lawsuit defense, route optimization, etc.
- ❑ <u>Drivers</u>
  - ✓ Sign in and out on the tablet
  - ✓ Complete pre-trip/post-trip safety inspection on tablet
  - ✓ Know that dispatch has their exact location in the event of an emergency
  - ✓ "Panic Button" available in the event of an emergency
  - ✓ Have substantiation, and verification, of bus parameters in the event of an accident
- ❑ <u>Dispatchers</u>
  - ✓ Real time data on bus operations such as location , speed and operation of safety equipment (stop arms, lights, etc.)
  - ✓ Dispatch first responders to an exact bus location
  - ✓ Direct buses around closed streets due to accidents, construction, or other emergencies
  - ✓ Direct buses to established reunification sites

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Strengths (functions working well)

- ❑ <u>Shop Personnel</u>
  - ✓ Use messaging system to reduce radio chatter
  - ✓ Receive low voltage alerts to jump start buses prior to driver arrival to avoid late departures due to mechanical issues
- ❑ <u>Parents</u>
  - ✓ "Here Comes the Bus" application
    - ➤ Set up "geo-fence" and receive text alerts when bus crosses geo-fence boundary

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Areas of Opportunity

- ❑ Expand Ridership Module
  - ✓ Students scan ID card/bus pass with student number bar code
  - ✓ Ensure student is supposed to be on that bus
  - ✓ Logs the time, and location, that a student boards, and departs, the bus so admin has a real time accounting of who is on each bus
  - ✓ Provides more accurate ridership FTE data

- ❑ Expand Parent usage of the "Here Comes the Bus" module:
  - ✓ Feedback from parents using this module have been overwhelmingly positive

- ❑ Develop Integration with new ERP System
  - ✓ Automate payroll processing
  - ✓ Overcome issues related to manual entry of time
  - ✓ Allow employees to view and verify timecards online

- ❑ Open Access for School Administrators
  - ✓ Run reports and view an airport style arrival status for buses serving the school

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Expected and Actual Outcomes

❑ **Expected Outcomes:**

✓ Real time telematics data to:
  ➢ Enhance operational safety
  ➢ Improve service to parents and schools
  ➢ Increase efficiency and provide savings opportunities and revenue enhancements

❑ **Actual Outcomes to date:**

✓ Have addressed, and corrected, several <u>safety</u> related driver behaviors
✓ Have addressed <u>service</u> level issues with parents and schools,
✓ Realized fuel consumption <u>savings</u> of over 14,000 gallons of diesel as compared with the same period of time last school year ($28,000)

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Issues, Concerns & Resolutions

❑ <u>Issue: Amount of time required enter login information and pre-trip inspection</u>

Early in the implementation we heard from staff about the difficulty in remembering the sequence, and time it took to login and complete the pre-trip inspections.

✓ <u>Resolved.</u> These issues have since been resolved through initial driver training and individual training based on need. **However, there may be a need for additional face-to-face training.**

❑ <u>Issue: Some drivers were unable to load their routes into the GPS Module</u>

✓ <u>Resolved.</u> We worked with the vendor to solve the issues of loading certain routes into the tablets

❑ <u>Issue: The information captured by the GPS System is not accurate.</u>

✓ <u>On-going Resolution.</u> We have been able to test and validate the information coming into the GPS system. It was discovered that some units would freeze up and not reflect the current information on the screen. Defective units were replaced at no cost to the district.

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Issues, Concerns & Resolutions

- ❑ Concern: Using Ridership Verification requires drivers to manually enter large numbers of students while the bus is stopped on the highway creating a safety issue
  - ✓ Resolution in Work:
    - ➤ Ridership module hasn't been fully implemented and is currently in testing phase
    - ➤ Recommendations and input from drivers involved in this test program will provide the basis for a plan going forward.
      - ➤ Pilot is currently Argyle Elementary School, Keystone Elementary, and Keystone Junior/High School.
    - ➤ Implementation of the Ridership Module will be under continuous review and modification as additional input/recommendations are received by the drivers
- ❑ Concern: If a student does not have their ID, or Bus Pass, they will be denied the ability to ride the bus
  - ✓ Resolved. This concern is unfounded. We will always pick up students and bring them to school.

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Issues, Concerns & Resolutions

❑ Issue: Turn-by-Turn directions not working

- ✓ Resolution in Work.   Turn-by-Turn directions work well for Interim drivers.   However, the default setting used to enable this feature is a global setting (all or none feature) that causes error messages to appear on the remaining buses.   This function was disabled until it can be resolved by the vendor

❑ Concern: GPS tablet will be a distraction to the driver, taking his/her attention away from driving

- ✓ Resolved/Unfounded. The only time a driver can interact with the GPS tablet is when the bus is not in motion. Once the bus exceeds 7mph, the GPS tablet switches to a clock face and inputs are not allowed

❑ Issue: Driver requests for additional features

- ✓ In-Work: Drivers have submitted numerous requests for additional features such as placing the "panic button" and "stop arm violation" icons on every page. Synovia is working closely with Transportation to make our system customizable to Clay County

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Superintendent's Recommendation

▶ **Option #1: Keep the GPS System**

  • Provides Immediate Data Opportunity for both the district and parents
  • Implement all available functions per contract
  • Provide immediate face-to-face professional development to drivers

▶ **Option #2: Cease Contract with Synovia Solutions**

  • Fear is that the district had a poor launch
  • Lack of professional development to staff
  • Financial hardships
    • Do we have sufficient funding to continue with this contract?
    • Are there greater needs such as AC or cameras?

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