



# FAPT Panel Discussion

## GPS Solutions

# Education Logistics, Inc.

## The Undisputed Industry Leader

- ◆ Founded in 1977, early pioneer of routing software
- ◆ Focused exclusively on the K-12 marketplace
- ◆ Over 1300 districts throughout North America
- ◆ Clients ranging in size from 200 to 1.8 MIL students
- ◆ ~150,000 buses are routed using Edulog's software
- ◆ Broad suite of software products to address the various needs of school Transportation Departments.
- ◆ The **only** GPS solution that offers full integration with planned routing data!

**Edulog offers "The GPS solution for School Buses"**

# The Tools For Schools

From Students & Parents to the Superintendent & School Board, everyone benefits from Edulog's solutions:



**Edulog.nt/ePTS**  
Pupil Transportation System



**Web Applications**  
WebQuery, WebStudent, WebReports



**WebSchoolAssistant**



**FieldTrip/TripTracker**  
Field Trip Management System



**FleetPro/eFleet**  
Fleet Maintenance System



**Boundary Planning, Redistricting**



**TransAcct**  
Transportation Accounting System

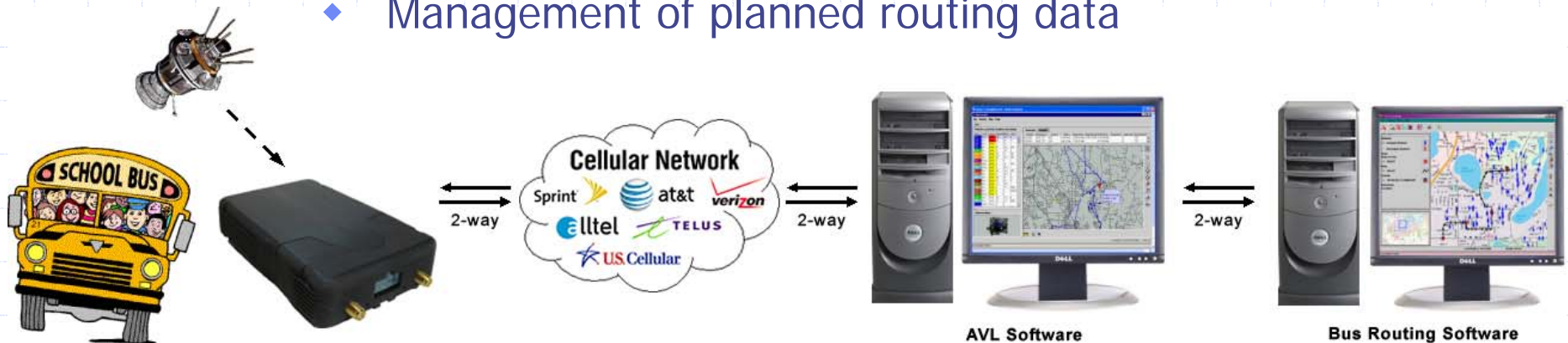


**EduTracker/BusTracker**  
GPS Tracking System

# GPS Basics

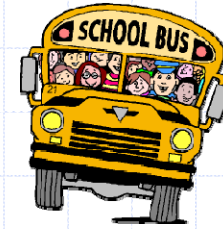
## What's needed for School Bus GPS?

- ◆ GPS unit (Peripheral Computing Device)
  - ◆ Specific telemetry sensors for school buses
- ◆ A Communication Platform
  - ◆ All major cellular networks
- ◆ AVL Software - Interprets & displays the AVL data
  - ◆ Provides Integration to Routing Software
- ◆ Transportation Routing & Scheduling Software
  - ◆ Management of planned routing data



# LMU 4100

Location Messaging Unit



## AVL plus Full Integration with CTMS

### Capabilities

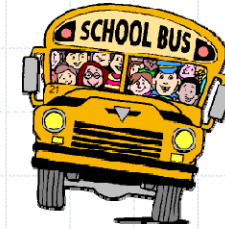
- ◆ Includes all critical I/O options specifically for school buses
- ◆ 13 extra I/O options available
- ◆ Ability to include an MDT, and/or student tracking in the future



### Advantages

- ◆ Specialized firmware provides deep integration with routing software
- ◆ Fully developed “back-end” tools allow Edulog to remotely support and maintain each unit (firmware updates/upgrades, diagnostics, etc.)
- ◆ Competitive cost. **Average \$700-\$900/unit**

# EduPhone



## Cell Phone Based GPS



- Motorola
- Low start-up cost
- Full integration with planned routing
- Driver payroll

# EduPhone



# EduTracker Software

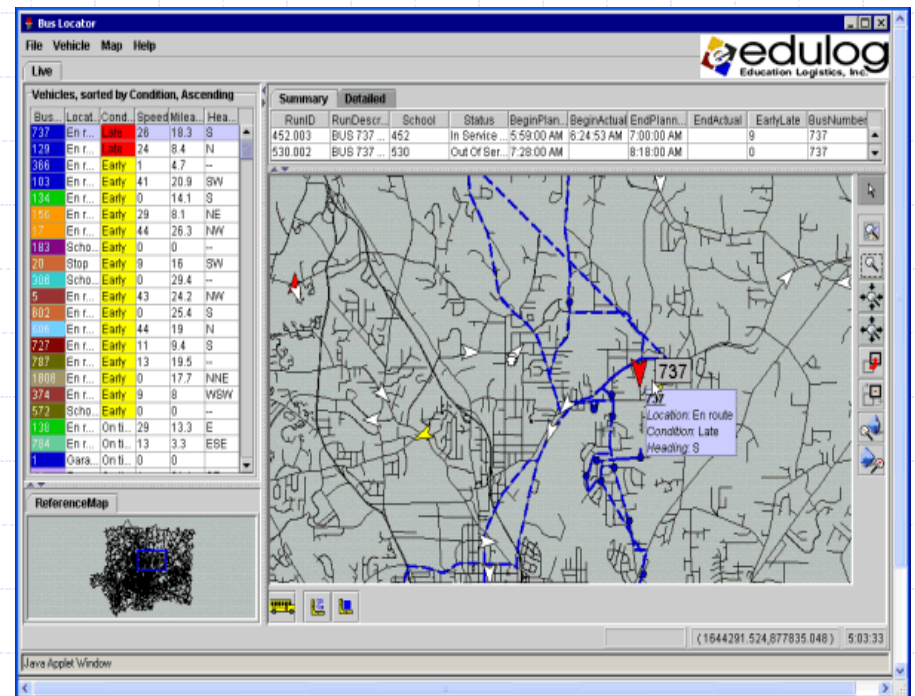
The Best Possible Solution to Address a School District's GPS needs: Combination of both the AVL server software & firmware/mobile software found on the GPS hardware

## ◆ Comparative Analysis

- ◆ Planned vs. actual data
- ◆ Events can trigger actions
- ◆ View actual & planned paths
- ◆ Dynamic rows & columns show early/late buses
- ◆ Icons change shape, size, color

## ◆ Import Data Back To Routing

- ◆ RunEditor/MapEditor



# Student Tracking

EduTracker also offers Student Tracking capabilities with full integration to planned routing software.

- ◆ **Comparative Analysis**

- ◆ Which kids get on/off the bus compared to which are assigned to that stop

- ◆ **Real Time Positive Identification of Students**

- ◆ Know exactly who is on the bus, not just who is assigned to be

The screenshot shows a software window titled "Passenger List" with a close button in the top right corner. Below the title bar, it says "For Run Run 22". The main area contains a table with the following data:

StopID	LastName	FirstName
Stop 111	Bottomly	Joe
Stop 111	Allen	Josh
Stop 112	Loveless	Robin
Stop 112	Nicoletto	Joseph
Stop 112	North	Agnes
Stop 113	Lynch	Lori
Stop 113	Senst	Jason
Stop 113	Clairmont	Jim
Stop 114	McCarthy	Phyllis
Stop 114	Buchanon	Buck
Stop 114	Schultz	Sara

Below the table, there are four status buttons: "Waiting" (yellow), "Picked Up" (white), "Dropped Off" (green), and "Missed" (red). At the bottom of the window are "Close" and "Print" buttons.

# RFID Student Tracking



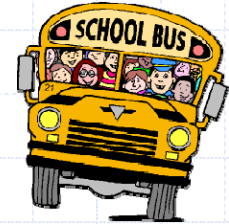
## Positive Identification of Students Boarding and Exiting Buses

### Scalable Hardware Options

- Different proximity ranges
- Different price ranges
- Different credential options



# Motia iMDT2000 series



AVL designed for 2-way Integration  
with CTMS/SPED module

## Capabilities

- Show Transportation/Student Data
- Touch Screen Interface
- Low impact design/installation

## Advantages

- Student tracking for Special Education Students
- Drivers can review and interact with MDT
- Push data to MDT for substitutes from base station to moving vehicle



# GPS/AVL Models

**“Standalone AVL”**  
(all standard GPS solutions)

**vs.**

**“Integration”**  
(unique to Edulog)

**Let’s look at the different in value for school districts...**

# GPS/AVL Integration

## Standalone GPS/AVL

- ◆ Instant access to live information
- ◆ See where the vehicles are on a map
- ◆ “Standard” AVL functions
- ◆ This is what virtually all competitor GPS systems offer

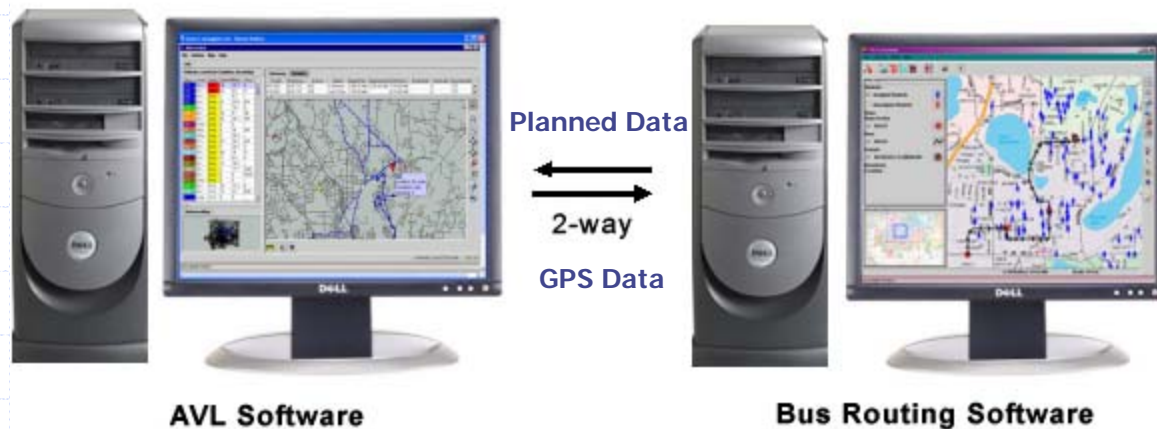


AVL Software

# GPS/AVL Integration

## GPS-Based Routing & Planning

- ◆ See where the buses are compared to where they are supposed to be – **“Manage by Exception!”**
- ◆ 2-way data exchange – **“True GPS-Based Routing”**
  - ◆ Data goes both to/from the AVL and routing software
  - ◆ Increased cost savings (more accurate planned data)
  - ◆ UNIQUE TO EDULOG!



# Total Project Management

## The Edulog Approach

The “One Stop Shop” vs. trying to get your Routing company + some GPS company working together.

- ◆ **Edulog knows School Transportation** – the company represents over 500 years combined employee experience!
- ◆ **No finger pointing possible** – Edulog is solely responsible for making all the pieces work!

# EduTracker AVL

## Setting the Industry standard

Let's take a look at the software itself...