

MICHIGAN STATE
UNIVERSITY

Beta Presentation

Fleet Auction Distribution and Sale Optimizer

The Capstone Experience

Team Chrysler

Zach Church

Dennis Cornwell

Kashif Khan

Jeffery Yang

Department of Computer Science and Engineering

Michigan State University

Spring 2011



*From Students...
...to Professionals*

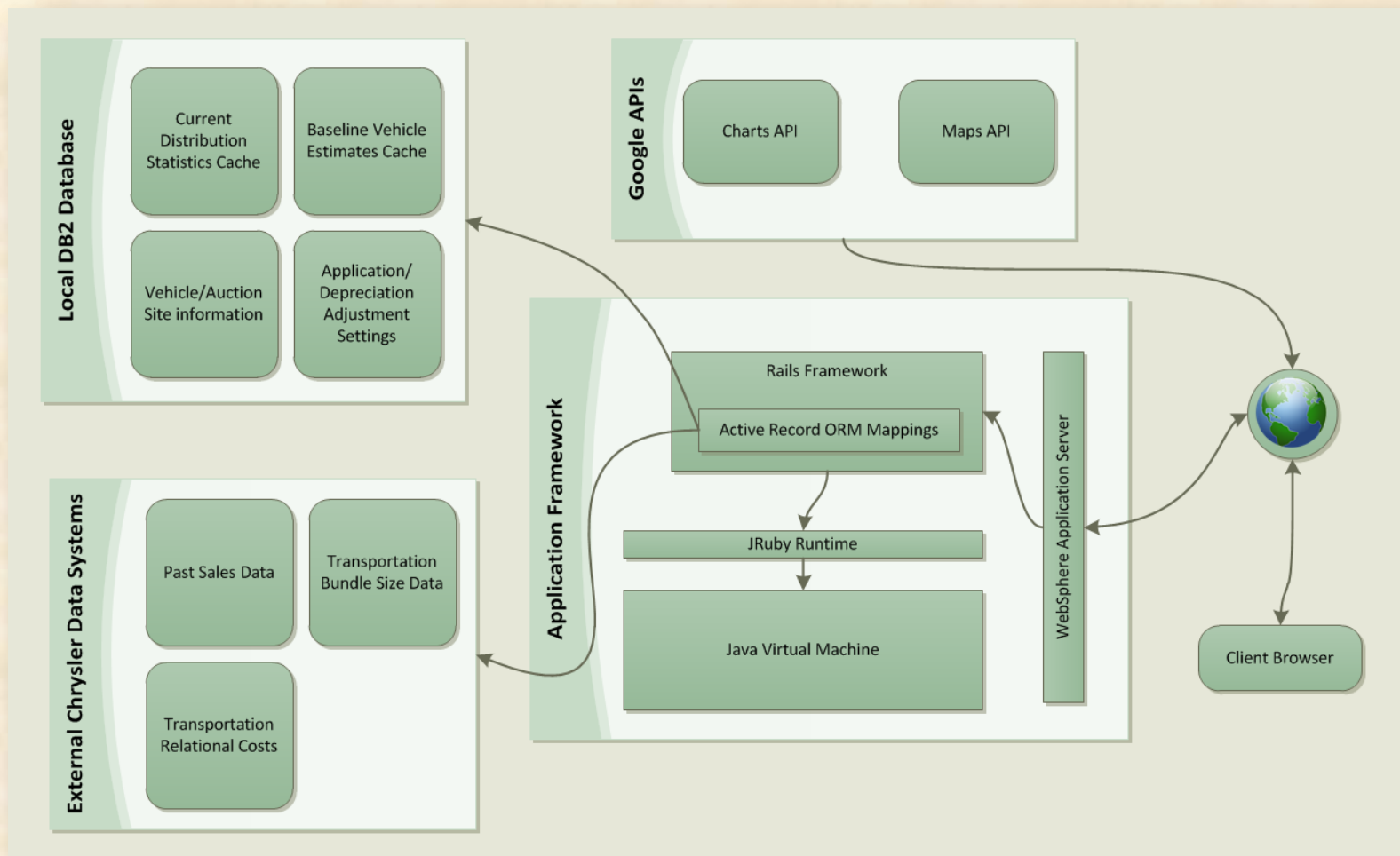
Project Overview

- Fleet vehicles returned throughout the nation
- Distribution manager decides where they go

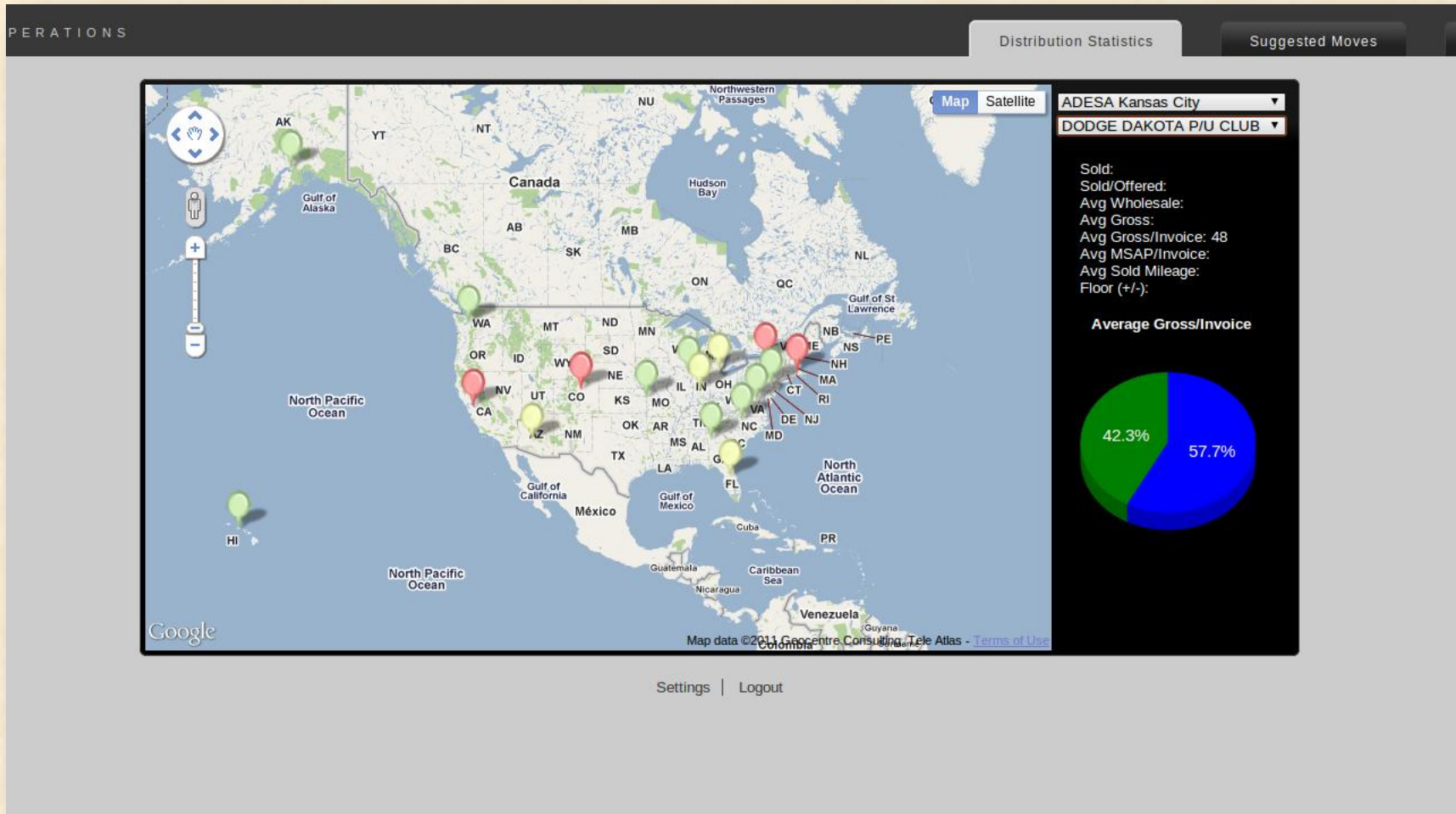
- Automate vehicle assignments
- Provide data visualizations
- Allow distribution manager to override



System Architecture



Current Distribution Statistics



Suggested Transports / Bundles

OPERATIONS

Distribution Statistics | Suggested Moves

Location	Vehicle	Miles
ADESA Atlanta 0 vehicles to be assigned	2001 DODGE DAKOTA ...	7,008 miles
ADESA Golden Gate (San Francisco) 0 vehicles to be assigned	1999 CHRYSLER SEBR...	12,840 miles
ADESA Indianapolis 13 vehicles to be assigned	2009 DODGE DAKOTA ...	21,948 miles
ADESA Kansas City 0 vehicles to be assigned	1999 CHRYSLER TOWN...	16,310 miles
ADESA Seattle 0 vehicles to be assigned	2007 DODGE GRAND C...	14,150 miles
ADESA Syracuse 0 vehicles to be assigned	2000 DODGE GRAND C...	11,097 miles
Dealers Auto Auction of Alaska 0 vehicles to be assigned	2006 CHRYSLER 300C...	20,172 miles
Greensboro 0 vehicles to be assigned	2009 DODGE AVENGER...	19,950 miles
Manheim Arena Illinois (Chicago) 0 vehicles to be assigned	2007 DODGE CALIBER...	20,412 miles
Manheim Denver	2001 CHRYSLER SEBR...	...

Auto-bundle

Staying Local
can accept 13, G/I: 40%

Location	Vehicle	Miles
ADESA Atlanta can accept 12, G/I: 64% 0 of 0 bundles with room	2005 CHRYSLER 300C...	3,607 miles
ADESA Golden Gate (San Francisco) can accept 4, G/I: 56% 0 of 0 bundles with room	2008 CHRYSLER 300C...	21,590 miles
ADESA Kansas City can accept -1, G/I: 70% 0 of 0 bundles with room	2001 DODGE DAKOTA ...	10,573 miles
ADESA Seattle can accept 1, G/I: 51% 0 of 0 bundles with room	2009 CHRYSLER 300 ...	10,359 miles
ADESA Syracuse can accept -5, G/I: 65% 0 of 0 bundles with room		
Dealers Auto Auction of Alaska can accept 5, G/I: 61% 0 of 0 bundles with room		

New Bundle

2007 DODGE CALIBER R/T FWD FOUR-DOOR HATCHBACK

Settings | Logout



Application Settings

OPERATIONS

Distribution Statistics Suggested Moves

Add New Auction		Name	Address	Chrysler Code
Edit	Delete	ADESA Atlanta	5055 Oakley Industrial Boulevard Fairburn, GA 30213	ATLANTA 532
Edit	Delete	ADESA Golden Gate (San Francisco)	18501 West Stanford Road Tracy, CA 95377	GOLD GATE 597
Edit	Delete	ADESA Indianapolis	2950 East Main Street Plainfield, IN 46168	INDIANAPOL 561
Edit	Delete	ADESA Kansas City	15511 Adesa Drive Belton, MO 64012	ADESA KC 557
Edit	Delete	ADESA Seattle	621 37th Street NW Auburn, WA 98002	SEATTLE 591
Edit	Delete	ADESA Syracuse	8901 Brewerton Road Brewerton, NY 13029	SYRACUSE 507
Edit	Delete	Dealers Auto Auction of Alaska	8400 Arlon Street Anchorage, AK 99507	ALASKA 792
Edit	Delete	Greensboro	3802 West Wendover Avenue Greensboro, NC 27407	GREENSBORO 529
Edit	Delete	Manheim Arena Illinois (Chicago)	550 South Bolingbrook Dr. Bolingbrook, IL 60440	ARENA 550
Edit	Delete	Manheim Denver	17500 East 32nd Avenue Aurora, CO 80011	DENVER 595
Edit	Delete	Manheim Detroit	600 Will Carleton Rd Carleton, MI	DETROIT 553
Edit	Delete	Manheim Fredericksburg	120 Auction Drive Fredericksburg, VA 22406	FREDERICKS 509
Edit	Delete	Manheim Hawaii	1001 Ahua Street Honolulu, HI 96819	
Edit	Delete	Manheim New England	123 Williams Road North Dighton, MA 02764	NEW ENGL 506
Edit	Delete	Manheim Orlando	11801 W. Colonial Drive, PO Box 220 Orlando, FL 32802	ORLANDO 537

Auction Settings Auction Distribution Settings Transportation Settings Vehicle Model Settings Import Data

Settings | Logout



What's left to do?

- Data visualization: more charts
- Test more advanced distributions: tweak model
- Standardize CSV import fields
- Clean up UI

