



The Voice of Public Transportation in Virginia

Flexible and Incremental Innovation

Lessons from transit software partnerships

presented to

VTA Annual Conference

presented by

Cambridge Systematics, Inc.

Raphael Barcham

September 29, 2021

Delivering innovation across Virginia



Performance management software for 183 agencies



Real-time information
dashbus.com/tracker



Crowding data
buseta.com



- » Software design and development
- » Data integration
- » Technical consultation

VDRPT Performance Management: Better decision-making with better data

» Data-driven funding allocation requires higher accuracy

TransAM 62 All ALIs All Organizations

Home > Revenue Vehicles

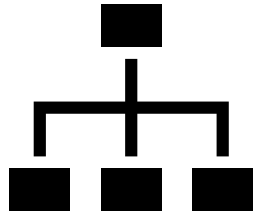
Revenue Vehicles

Buses (Rubber Tire Vehicles) Rail Cars Ferries Other Passenger Vehicles

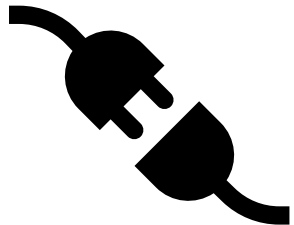
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<input type="checkbox"/>	#214	CMD - Chevrolet Motor Division - GMC	Body on Chassis (CT) (#214)	Gasoline	Bus	2011	Cutaway	Bus < 30 FT	Disposed	Record final disposition	2018-02-12
<input type="checkbox"/>	#404 2019 G...	GIL - Gillig Corporation	G27B102N4	Diesel Fuel	Bus	2019	Bus	Bus Std 35 FT	In Service	Mileage	2021-01-28
<input type="checkbox"/>	# 211	FRD - Ford Motor Corporation	E-350 Raised Roof Van wit...	Gasoline	Unknown	2011	Van	Van	Disposed	Record final disposition	2018-01-09
<input type="checkbox"/>	# 301	SPC - Startrans (Supreme Corporation)	Body on Chassis (RT) (#30...	Gasoline	Bus	2011	Cutaway	Bus < 30 FT	Disposed	Record final disposition	2018-09-20
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<input type="checkbox"/>	# 305	SPC - Startrans (Supreme Corporation)	Body on Chassis (RT) (#30...	Gasoline	Bus	2011	Cutaway	Bus < 30 FT	Disposed	Record final disposition	2018-09-20
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<input type="checkbox"/>	# 307	SPC - Startrans (Supreme Corporation)	Body on Chassis (RT) (#30...	Gasoline	Bus	2011	Cutaway	Bus < 30 FT	Disposed	Record final disposition	2018-09-20

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VDRPT (cont.): Collaborative requirements, process and implementation



Defining Statewide Hierarchy



Cleaning Data Iteratively with NHTSA vPIC Integration



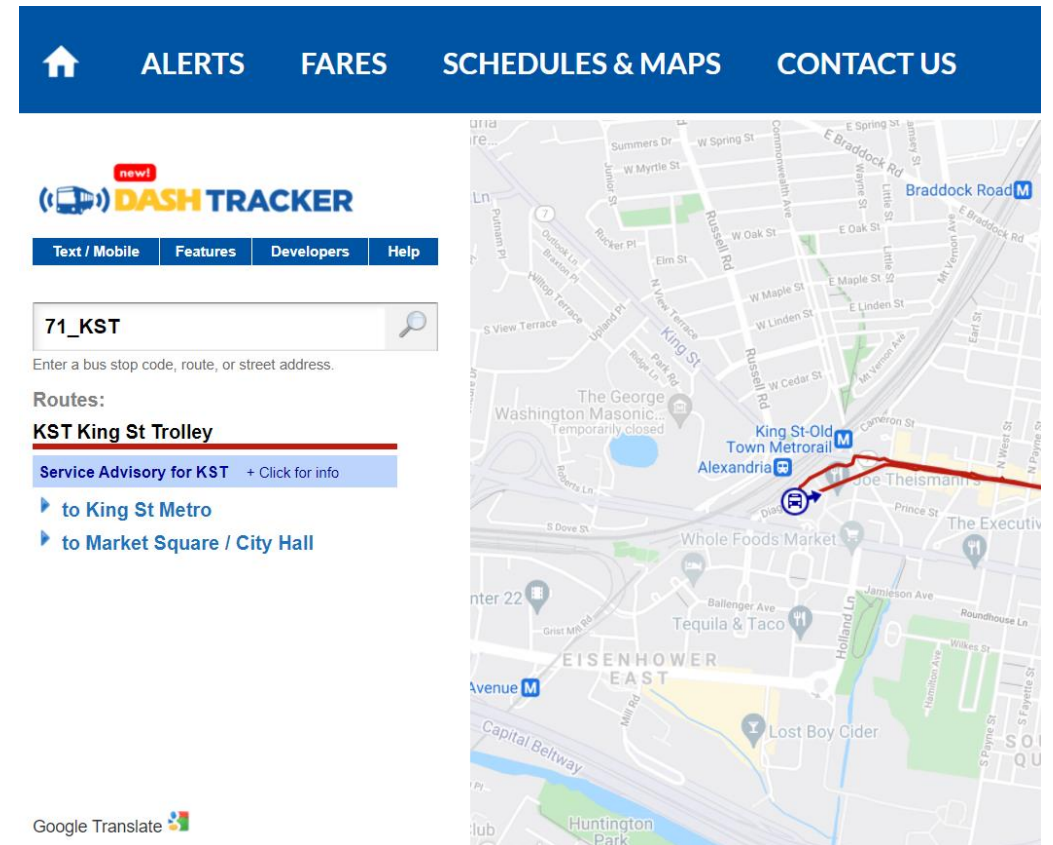
Building Dynamic Selection and Validation

DASH: Better real-time information

» Arrival info for bus shuttles

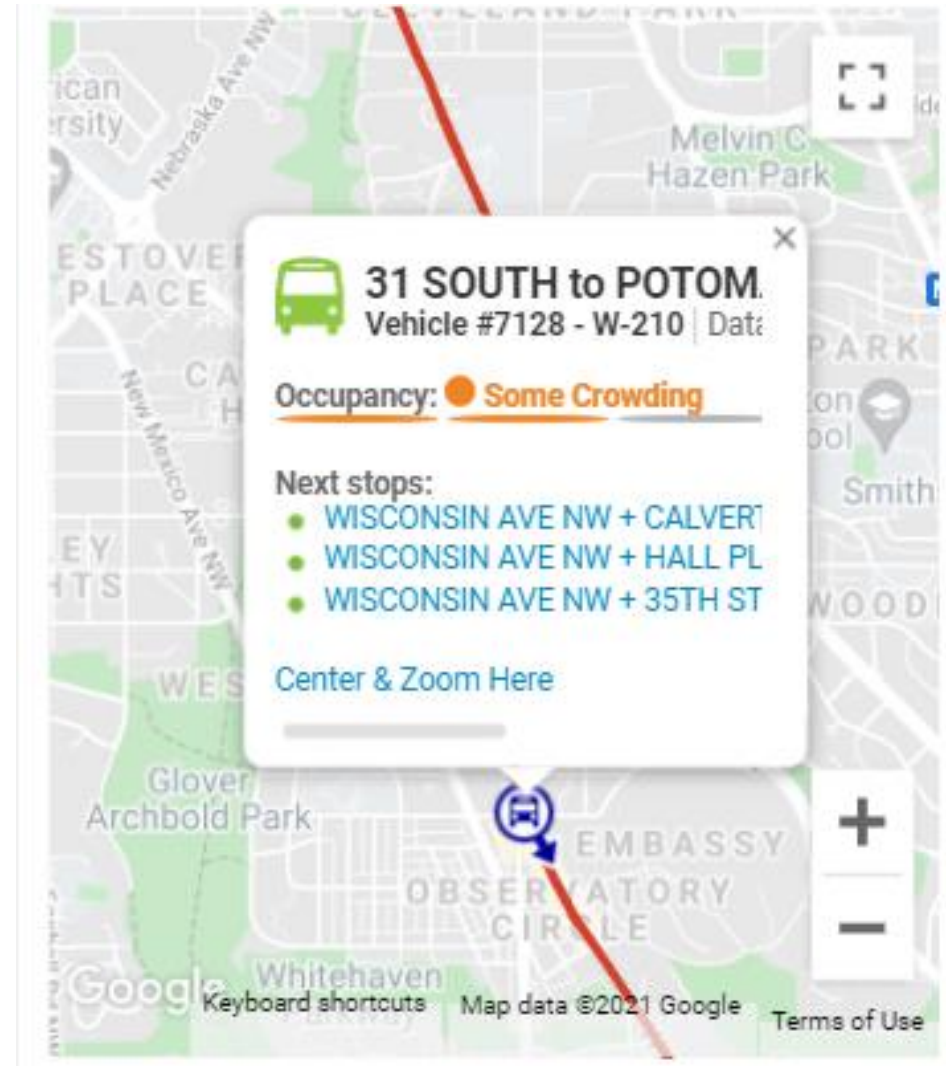


» Piloting traffic data integration



WMATA: Better and safer customer experience with crowding data

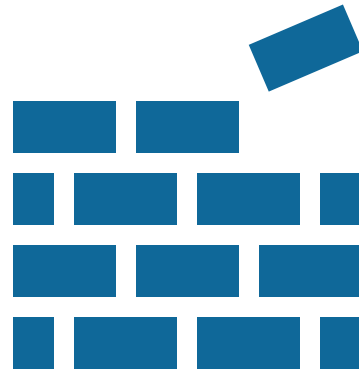
- » Integration with WMATA source data and systems
- » Enhancements to prediction software and customer information web apps
- » Publication as open data via GTFS-RT standard APIs for external consumers



How to make software projects a success



Flexible
implementation



Incremental and
extensible



Data integration and
open APIs

Questions?

Contact Information

Raphael Barcham

rbarcham@camsys.com | 646.364.5478

camsys.software

