

# Vehicle Probe Project II



I-95 CORRIDOR  
COALITION

*Agency Project Team Webcast*

June 26, 2014

# Call Courtesies

- Please keep your phone muted until asking a question or speaking (press \*6 to mute/unmute individual phone lines)
- Please do not place call “on hold” as your hold music may be heard by the group
- Please call Bridget Postlewaite at 302.331.1646 for difficulties with the web application

# Webcast Registration (1 of 2)

Agency	Representative(s)
Connecticut DOT	Michael Connors
Rhode Island DOT	Jacobs (Bill Nordstrom, Dan Herstine) & TrafInfo (Deanna Peabody)
New York State DOT	Todd Westhuis, Lynn Weiskopf
New York City DOT	Michael Marsico
New Jersey DOT	Sudhir Joshi, Dennis Motiani, Neha Galgali
Pennsylvania DOT	Jay Sengoz
Maryland SHA	Glenn McLaughlin
Virginia DOT	Karen Blackwell, Scott Cowherd, Rose Lawhorne
North Carolina DOT	Kelly Wells
South Carolina DOT	Dipak Patel
Georgia DOT	Mark Demidovich
Florida DOT	Derek Vollmer
Tennessee DOT	Brad Freeze

# Webcast Registration (2 of 2)

Agency	Representative(s)
FHWA	Vidya Mysore, Rich Taylor, Bob Rupert
Baltimore Metro. Planning Org.	Victor Henry, Ed Stylc, Eileen Singleton
Capitol Region COG (CT)	Pramod Pandey
South Western Reg. Planning Agency (CT)	Alex Karman
North Jersey Transp. Planning Authority	Solomon Caviness, Keith Miller
South Jersey TPO	Andrew Tracy
Delaware Valley Reg. Planning Comm.	Jesse Buerk
MWCOG	Wenjing Pu
Richmond Reg. Planning District Comm.	Tiffany Dubinsky
Fort Meade Regional Growth Mgmt Com.	Choptank Group LLC (Jean Friedberg)
NJ Institute of Technology	Dejan Besenski & Kitae Kim

# Agenda

1	Introductions & Welcome	KMJ/George
2	Procurement Results	George
3	About the Vehicle Probe Project <ul style="list-style-type: none"><li>• Then &amp; Now</li><li>• Technical Characteristics</li></ul>	Stan
4	VPPII DUAs	Stan
5	VPP Suite & VPPII	Michael
6	Contracting Issues	Kathy
7	Vendor Webcast with Agencies	George
8	Other VPPII Activities (website changes, project documents, upcoming meetings/events)	KMJ
9	Wrap up & Thank you	George

# Introductions & Welcome

***George Schoener,  
I-95 Corridor Coalition***

# VPPI transition to VPPII



## VPPI

- Conceived in 2006
- Procurement process occupied much of 2007
- VPPI led the nation in outsourced probe data procurement and remains the largest (as far as we know) in the world.
- 7,000+ Centerline Freeway Miles and 38,000 Arterial Miles covered
- 12 Agencies involved

## VPPII

- The procurement process began in summer 2013
- Multiple Vendors selected
- Creating the first traffic data marketplace
- Continue VPP Suite
- Continue supporting arterial expansion

# Procurement Results

***George Schoener,  
I-95 Corridor Coalition***



# Data from VPPII is available

- Three highly qualified vendors selected by the Agency Evaluation Team
  - HERE
  - INRIX
  - TomTom
- **VPPII anticipated to be available on August 1, 2014**
- Many thanks to all of the Coalition Agency members who diligently reviewed information and selected the vendors –  
**You are what makes the Coalition great!**

# About the Vehicle Probe Project

***Stan Young,  
University of Maryland***

- The VPP – Then (VPPI) and Now (VPPII)
- The VPP – Technical Characteristics

# The VPP – Then (VPPI) and Now (VPPII)

# VPP II Fact Sheet – 1

	VPP I	VPP II
Objective	Freeway Traffic Monitoring System for Operations	Freeway and Arterial Traffic Monitoring and Archive for Operations, Performance Measures and Planning
Data Quality and Validation	Industry first specifications based procurement and validation program	Continued, with higher data quality specs including latency and application to arterials
Traffic Data Characteristics	Speed and travel time with confidence indicators using TMC segments	Continued, with more optional parameters, TMCs as well as sub-TMC granularity

# VPP II Fact Sheet – 2

	VPP I	VPP II
Archive Data	5-minute archive from vendor, and one minute archive from VPP-suite	One minute archive from all vendors and VPP Suite
VPP Suite	Central archive, analysis and visualization tools to support performance measures	Continued, with guidance from Coalition committee
Data Rights and Licensing	<p>Led industry in liberal data use terms, supports all internal applications, external applications consistent with agency mission. Data is licensed in perpetuity, and once purchased can be shared with all members. DUAs streamlined in VPPII, extending terms of use to Coalition participants.</p> <p>-----</p> <p><b>VPPII DUAs need to be executed</b></p>	

# VPP II Fact Sheet – 3

	VPP I	VPP II
Price for Coverage	Freeways : ~750 / mile / year Arterials : ¼ price with 'all-in' discounts	Roughly 1/2 Price is based on Urban/rural freeway and major/minor arterials All-in discounts
Funding	Grants paid for ~1500 miles and validation & management	Full coalition member funding
Management and Administration	Coalition provides central management, with technical support from CATT. A Project Team drawn from Coalition members periodically reviews VPP progress, technical issues, and validation results..	

# The VPP – Technical Characteristics

# VPP II Fact Sheet – A

	HERE	INRIX	TomTom
Vendor Strengths	Strong offerings and experience in probe data. All vendors have mature core products.		
	Experienced team meeting public sector needs	Demonstrated ability to meet Coalition req's in VPPI	Significant international experience/clients
Contact Info	<p>Monali Shah 312-894-7244 <a href="mailto:monali.shah@here.com">monali.shah@here.com</a></p> <p>Keith Hangland 303-974-8111 <a href="mailto:keith.hangland@here.com">keith.hangland@here.com</a></p> <p>Terri Johnson 214-446-4777 <a href="mailto:terri.johnson@here.com">terri.johnson@here.com</a></p>	<p>Rick Schuman 407-298-4346 <a href="mailto:rick@inrix.com">rick@inrix.com</a></p>	<p>Ken Clay 603-219-3529 <a href="mailto:kenneth.clay@TomTom.com">kenneth.clay@TomTom.com</a></p> <p>Harriet Chen 734-358-0866 <a href="mailto:Harriet.Chen-Pyle@tomtom.com">Harriet.Chen-Pyle@tomtom.com</a></p>



# VPP II Fact Sheet – B

	HERE	INRIX	TomTom
Data Quality	All vendors in VPPII can reference measured accuracy based on objective criteria.		
	Procedures similar to VPPI	Extensive testing through VPPI	'QKZ' method stresses user experience
Roadway Segments	All Support TMC Segmentation		
	All Offer Sub-TMC and Alternate Segmentation Scheme		
	All address timeliness of new TMCs		
	CAUTION : Use non-TMC methods with CAUTION		
Latency	Maximum latency of eight minutes assessed and enforced via validation program		
Time Resolution	One Minute Data has emerged as industry norm		

# VPP II Fact Sheet – C

	HERE	INRIX	TomTom
Monitoring Sites	<p>Each vendor will offer a monitoring site to view real-time data.</p> <p>RITIS will continue to offer a combined view of all vendor data. VPP Suite will support each vendor.</p> <p>Any Coalition member that has executed a Data Use Agreement will gain access to all monitoring sites.</p>		
Ancillary Products	<p>Each Vendor Offers Extra Projects for a Charge</p> <p>HERE – Additional Map Layers and Weather Data</p> <p>INRIX – Archive Traffic Data, Alternative APIs, Shapefiles, &amp; Conflation</p> <p>TomTom – Custom segment definition</p> <p><b>ASK THE VENDORS FOR MORE DETAILS</b></p>		
Ordering Data	<p>Discuss with Vendors</p> <p>SIGN DUA</p> <p>Contact UMD for pricing estimates</p> <p>Contract with UMD for data</p>		

# **VPPII Data Use Agreements (DUAs)**

***Stan Young,  
University of Maryland***

# DUAs for VPPII

- VPPII DUA to be available to members prior to July 1, 2014
- Consolidated to cover all vendors
- Same basic principles of VPPI DUA – Just streamlined
- **Review and sign in July – URGENT!!!**

# Vendor Webcast with Agencies

***George Schoener,  
I-95 Corridor Coalition***

# Get to know the vendors in VPPII

- Scheduled for **July 10, 2014 from 10:00am to 11:15am**
- One webcast with three vendors - each will have separate time to speak with agencies
- Emphasis on core offerings
  - Data feed, elements, and quality
  - Monitoring site and archive access
- Members encourage to schedule follow-up meetings!!!!

# Potential Questions for Vendors to Address

- A. Please explain the data items in the traffic data feed, and how often the data feed is updated?
- B. What indication is there when the data is real-time, and when it has to rely on historical data or inference?
- C. How is the traffic data (speed and travel time) obtained? What are the probe sources? How is the data processed? Are the sources representative of all traffic?
- D. How accurate is the data? How has it been tested? Where has it been used and integrated?
- E. How do I gain access to the monitoring site (URL and permissions)? What is available through the monitoring site? (A demo or overview of the monitoring)
- F. How do I gain access to archive data? What elements are available? How do I request the data?

# VPP Suite & VPPII



***Michael Pack,  
University of Maryland CATT Lab***



# Current State of the Suite

- New features deployed two weeks ago
- More new features planned for later this summer and through the end of 2014
- Approx. \$450k from MCOMII available for:
  - Enhancements
  - O&M
  - User Support from MCOMII funding
- States & MPOs continue to influence priorities

# Moving Forward

- After the \$450k MCOMII money is depleted, we will need to find a long-term funding mechanism for:
  - Storage
  - O&M
  - Feature requests
  - User support/training

# Changes to the Suite for VPPII

- Data Compatibility
- Integration Challenges
- Sub-TMC segments
- Backfill
- Multi-vendor states
- User Interface Options
- Long-term storage



# Data Compatibility

- All TMC-based data from HERE, INRIX, and TomTom is compatible with the VPP Suite because of strict contract specifications.



# Integration Challenges

- CATT Lab staff are modifying the suite to handle multiple probe data vendors. What you can expect over the next 6-months:
  - There will be **no issues or delays** with the Suite if:
    - An existing INRIX agency stays with INRIX
    - A new agency purchases INRIX (moving forward)
  - There will be **minimal** initial startup delays if:
    - An agency procures HERE data moving forward
    - An new agency procures INRIX data and wants to do multi-year backfill.
  - There may be **longer (multi-month) initial integration delays** if:
    - An agency procures TomTom
    - Any agency wants NEW multi-year backfill from any vendor
- These delays will disappear after the first 6-months or after at least one agency chooses one of the new vendors.

# Sub-TMC Segments

- No agency has asked for this feature yet.
- No vendor has provided specifications for their sub-TMC data.
- Can quadruple storage needs in some areas.
- Sub-TMC data is not yet supported in the Suite, but could be with effort and funding.

# Backfill

- Takes time (for all vendors)
- Requires additional storage
- Requires effort

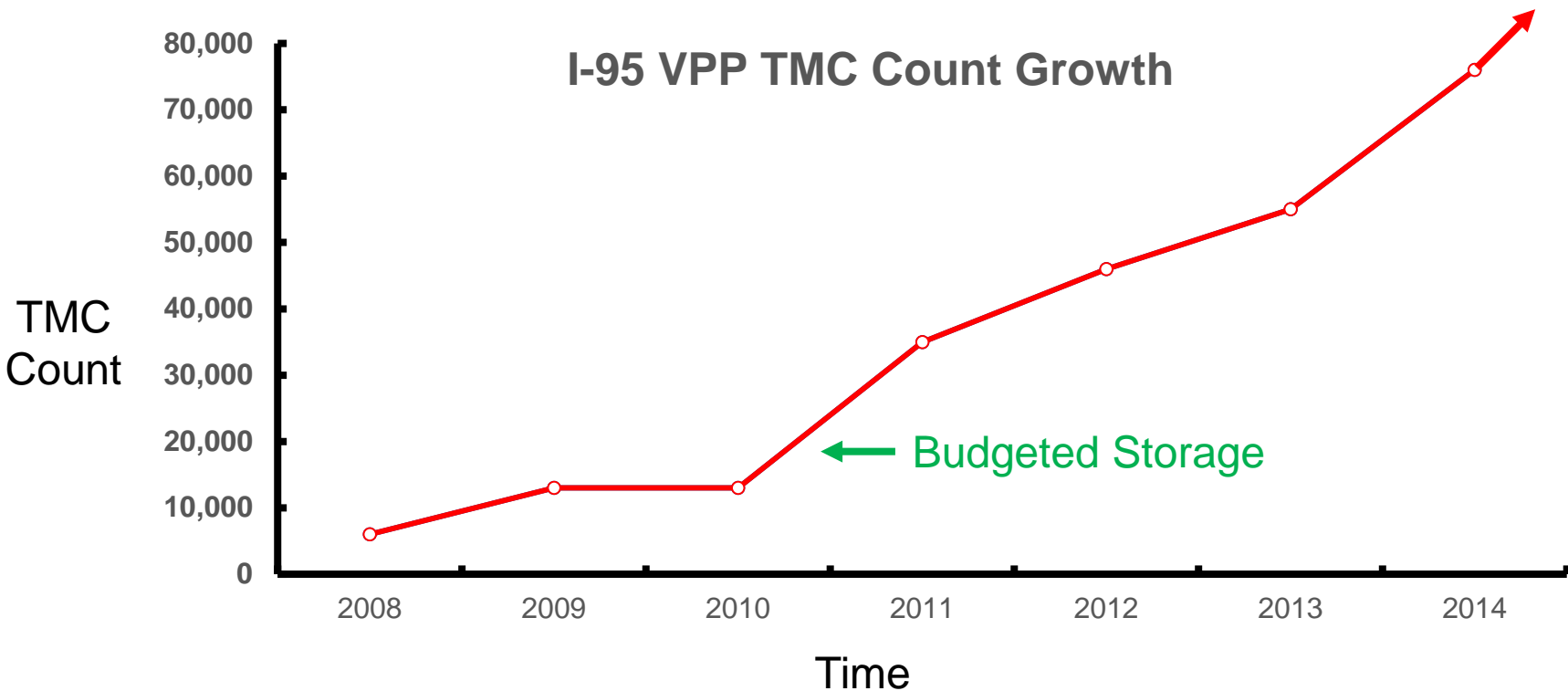
# Multi-vendor States

- The suite currently works for one provider at a time.
- When multiple vendors (simultaneous or not) are procured for any geography, then several user interface and data management questions arise that will need to be dealt with.



# Long-term Storage

- Nearly 1-Billion Records per day!



# Contracting Issues

*Kathy Frankle,  
University of Maryland*

# Contracting Issues

- Contracting/funding options through UMD
- Estimating cost of coverage/data
  - UMD has tools for estimating entire state, or a subset or region for each vendor
- Members can initiate or CHANGE coverage or vendors via task orders
- Members can acquire data from multiple vendors

# Other VPPII Activities

***Karen Jehanian,  
KMJ Consulting***

- Website Changes
- Project Documents (including Interface Guide)
- Upcoming Meetings/Events

# Upcoming Meetings/Events

- **June 29 – July 2, 2014** – NATMEC: Improving Traffic Data Collection, Analysis, and Use - Chicago, Illinois
- **July 10, 2014** – Agency Project Team Webcast to meet Vendors
- **Aug 1, 2014** – VPPII contract to begin (anticipated)
- **Aug 24 – 27, 2014** – National Rural ITS Conference (Branson, MO) – Probe Data Breakout session
- **Sept 7 – 11, 2014** – ITS World Congress (Detroit, MI) – Probe Data Applications session

# Wrap Up & Thank you

***George Schoener,  
I-95 Corridor Coalition***

- Agency Project Team Webcasts – planned to be held quarterly
- Agency Applications of Probe Data – KMJ will be collecting info from agencies (ITS WC)

# Thank You



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