CS OneBusAway (OBA) Overview

presented to

TPB Public Transportation Committee

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CAMBRIDGE SYSTEMATICS

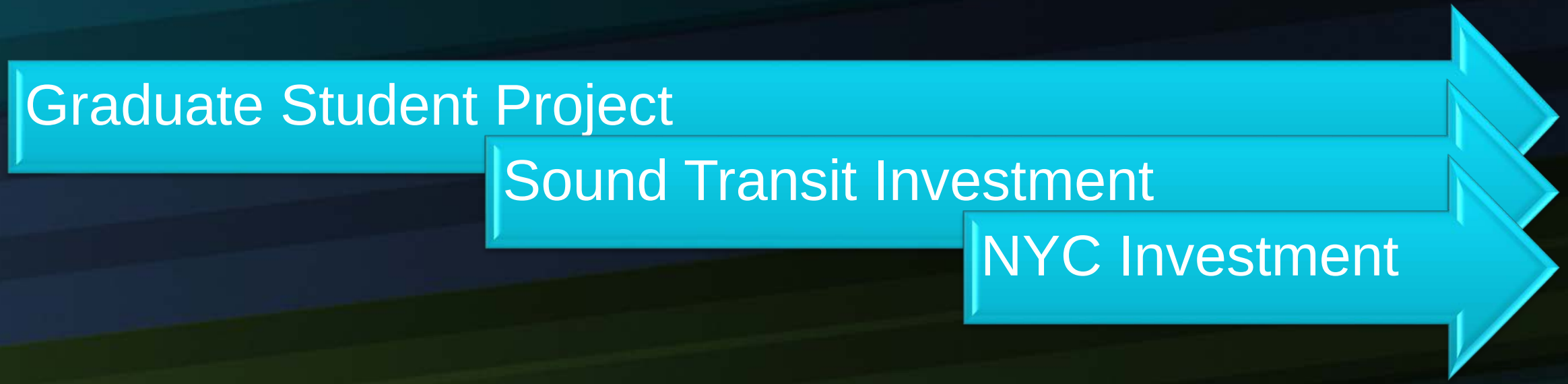
Think *Forward*

April 26th 2016

Agenda

- OBA History
- OBA Overview
- OBA Deployment Elements
- Prediction Engine: Transitime
- Lessons Learned
- OBA Roadmap
- Open Discussion

OBA History



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What is OneBusAway?

Customer Information System (CIS)

- Provides transit information to customers via web
- Sign interface support
- Limited administrative functionality

Open Source

- Code is available to anyone via GitHub
- Freely customizable
- Large community of support

Mobile Applications

- Open source mobile app
- Open trip planner (OTP) integration
- Regional support

Mobile Applications

OneBusAway – Mobile Apps

Android

iPhone

Windows Phone & Windows 8

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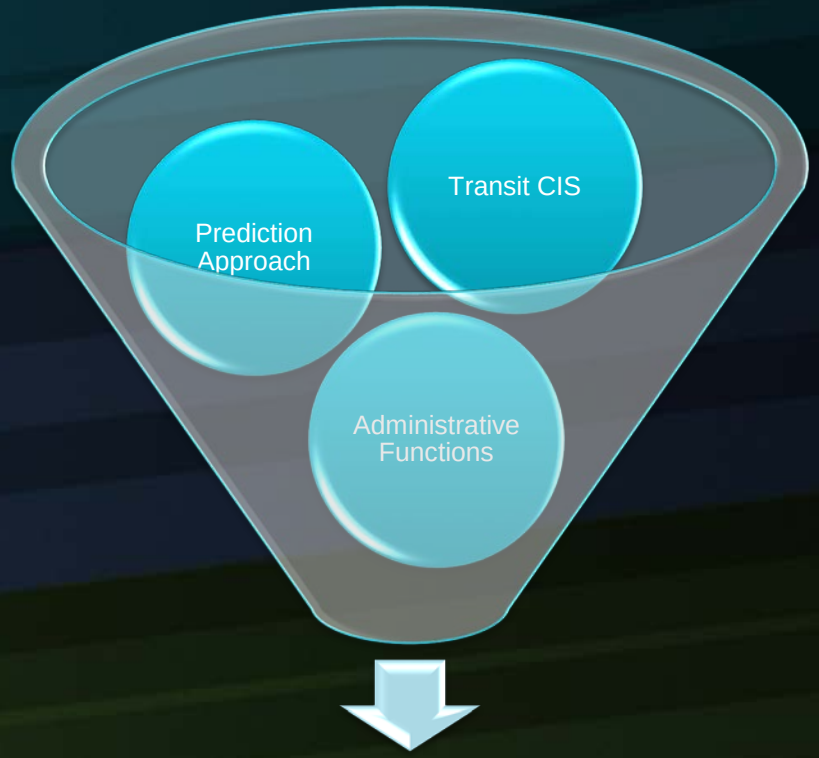
Sign Interface

2 AVE EXT S & S WASHINGTON ST

Stop #380

410	Downtown Seattle (scheduled)	1 minute	30 minutes 50 minutes
405	Downtown Seattle (scheduled)	3 minutes	53 minutes
402	Downtown Seattle (scheduled)	4 minutes	13 minutes 22 minutes
415	Downtown Seattle (scheduled)	6 minutes	33 minutes 48 minutes
590	Commerce St Transit Area Bus #9214	8 minutes	
594	Lakewood Station (scheduled)	23 minutes	
417	Downtown Seattle (scheduled)	36 minutes	36 minutes
422	Downtown Seattle (scheduled)	61 minutes	
424	Downtown Seattle (scheduled)	63 minutes	

Elements of an OBA deployment



Basic OBA Deployment

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WMATA Prediction Engine: Transitime

Bus Operational Model

- Requires real-time and schedule data (GTFS/AVL)
- Predictions based on real-time and historical behavior

Administrative Functions

- Prediction accuracy reports
- Block reports
- Additional reports to come

Open Source

- Created by Michael Smith of Swiftly
- Code is available to anyone via GitHub
- Freely customizable

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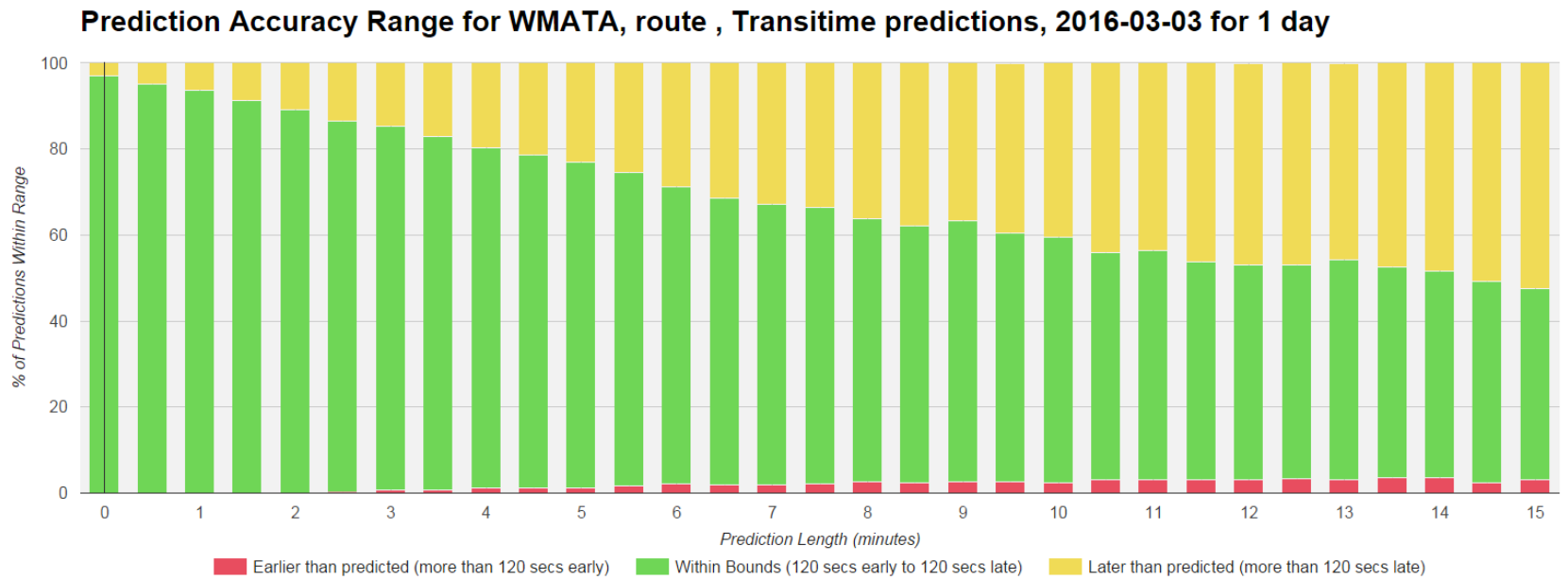
Transitime

Transitime



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WMATA: Lessons Learned

- 30 day pilot recommended
- Thorough GTFS examination
- Leverage additional data evaluation tools

Our OBA Roadmap

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Open Discussion

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