

July 22-24, 2012  
Loews Hotel  
Atlanta, Georgia

## IBTTA Summit on All-Electronic Toll Collection

# A Picture's Worth a Thousand Words

## Benefits of "At-a-Glance" Trend Monitoring during Go-Live and Beyond

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## Presentation Overview:

Introduction

Background

Reasons for Trend Monitoring

Three Audiences:

- Interagency Stakeholders: Goals & Results
- Internal Stakeholders: Goals & Results
- Upper Management: Goals & Results

Other Uses for Trend Monitoring

Beyond Go-Live

Questions

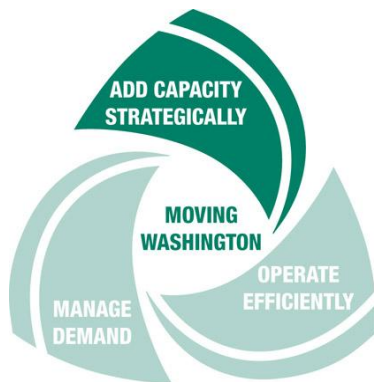


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### Background- WSDOT Tolling Division

- WSDOT is the tolling agency
- Pre-existing Facilities prior to 520:
  - Tacoma Narrows Bridge (SR 16)
  - SR 167 HOT Lanes
  - Statewide Customer Service Center
- Along with revenue generation, tolling supports the “Moving Washington” program.



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## General Overview of SR 520

- SR 520 vital east-west corridor in Seattle area
  - Aging existing bridge in need of replacement
  - Pre-tolling daily volume >115,000, twice the design volume
- Tolling part of Lake Washington Urban Partnership
  - Tolling helps manage congestion & helps pay for new bridge
  - Toll collected via an all-electronic single-point variable toll
  - Several ways to pay: pass, pay by plate or pay-by-mail
  - AET began on existing bridge on Dec 29, 2011

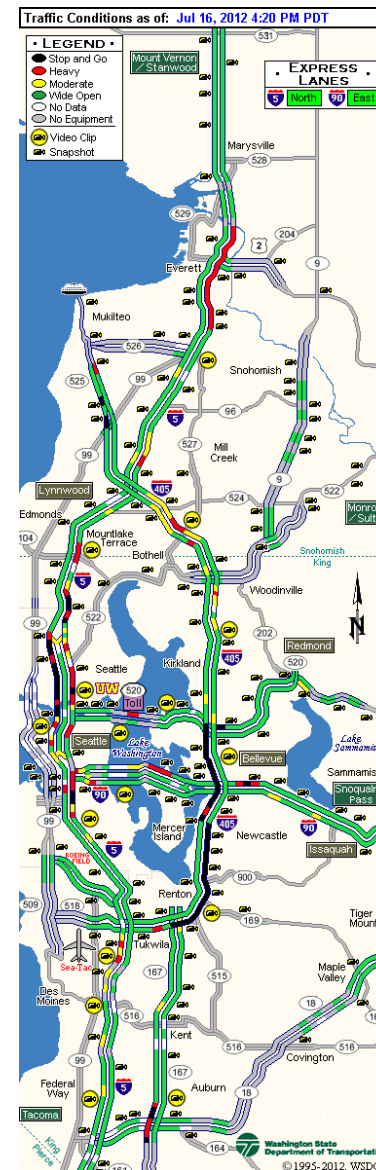


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## Reasons for Trend Monitoring

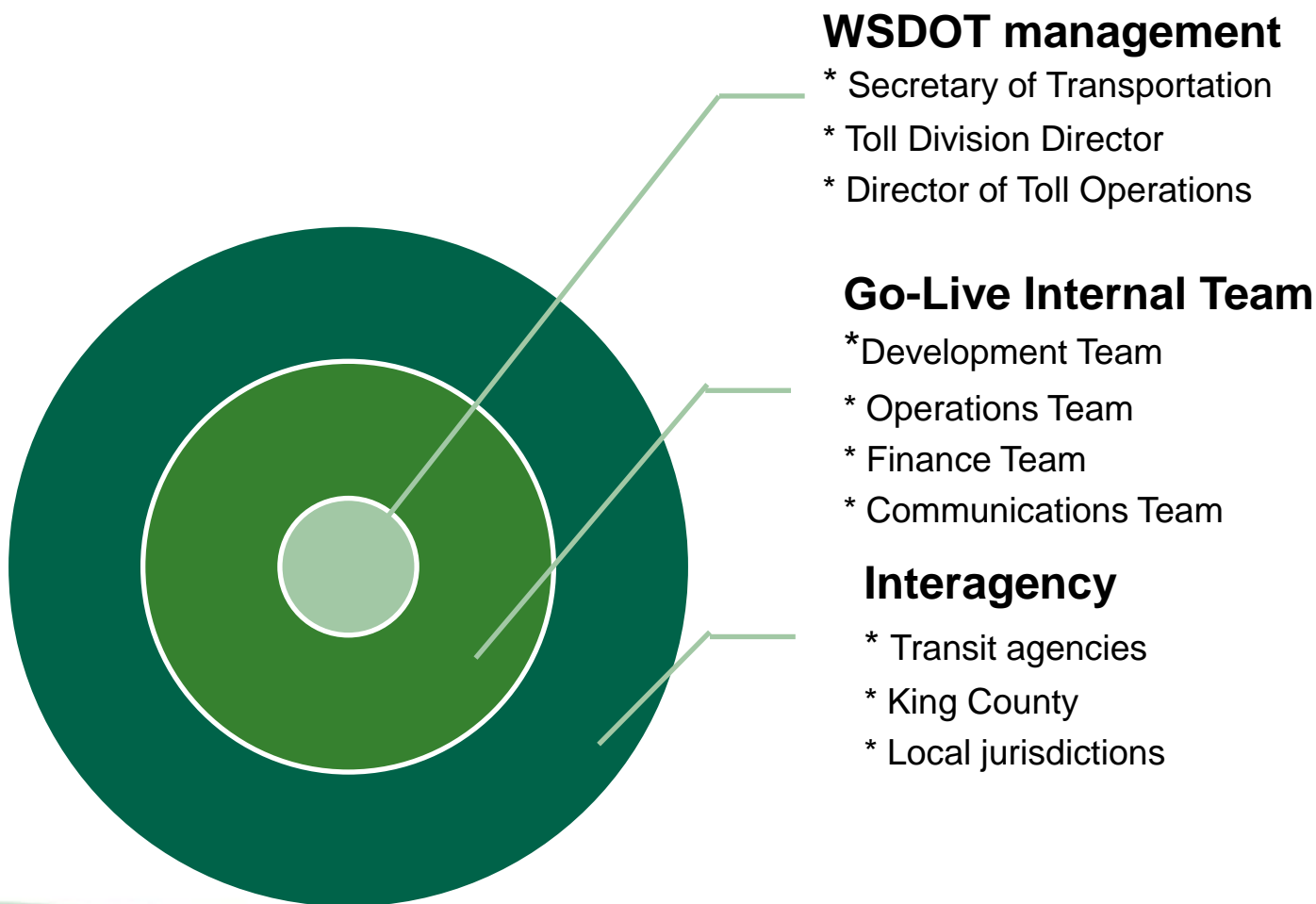
- Measure performance during Go-Live
- Compare forecasts to actuals
- Transparency
- Manage the message to the public
- Keep stakeholders informed



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## Three Audiences = Three Levels of Monitoring



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### Interagency Stakeholders – Background & Goals

- Preparing for Go-Live, WSDOT carried out successfully coordinated communication plan for local agencies and public media
- Advance coordination to establish clear expectations
- Goals:
  - Provide Transparency
  - Grow Trust & Credibility
  - Improve Relationships

**Electronic tolling on the  
SR 520 Bridge starts  
December 29.**



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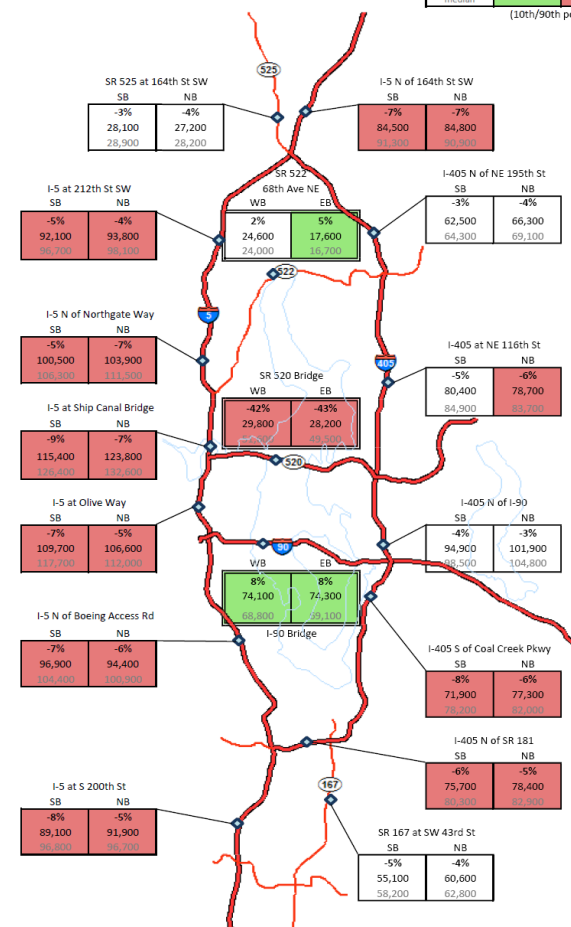
## Interagency Stakeholders – Examples & Results

- Provided daily updates through shared access FTP site
- Data included SR 520 & surrounding highways
  - Traffic volumes, travel times, transit ridership
- Benefits
  - Leverage work of others
  - Provided data for agencies to use with decision makers
  - Strengthened Relationships

**SR 520 Tolling: Traffic Monitoring**  
Daily Mainline Volumes  
Wednesday, January 04, 2012

Base data: M-F, 10/29-11/18 & 11/26-12/16

% change 1/4/2012 median	above range of typical variation	below range of typical variation
	(10th/90th percentile)	

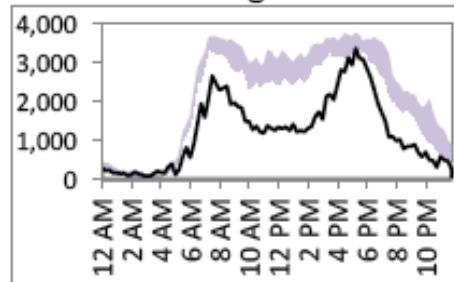


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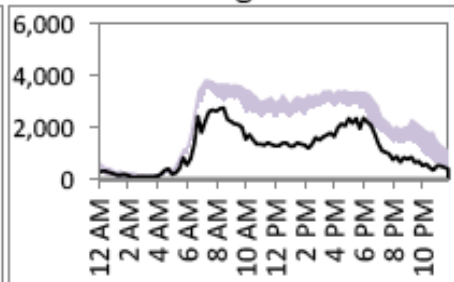
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## Interagency Stakeholders – Examples & Results

SR 520 WB Bridge



SR 520 EB Bridge

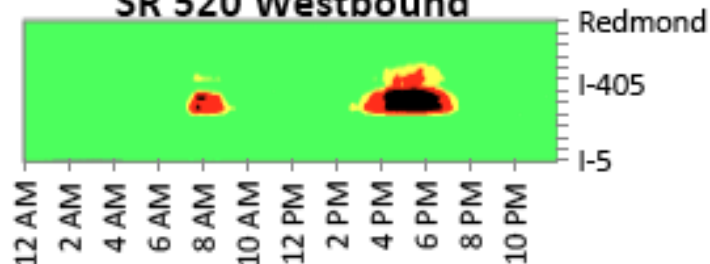


— Wednesday, January 4, 2012

■ Typical Range (10-90%ile, M-F, 10/29-11/18 & 11/26-12/16)

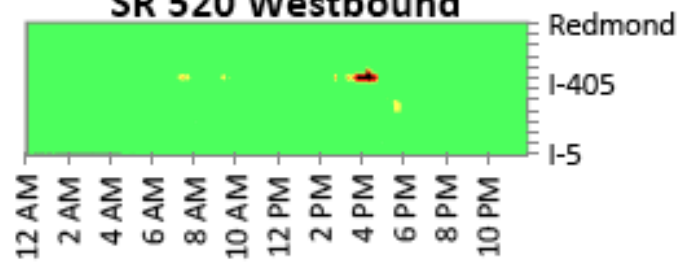
- Hourly Volume Profiles
- Congestion Contours

SR 520 Westbound



M-F, 10/29-11/18 & 11/26-12/16

SR 520 Westbound



Wednesday, January 04, 2012

- free flow
- moderate
- heavy
- stop and go

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## Internal Go-Live Monitoring: Background & Goals

Internal effort initiated to monitor key trends “at-a-glance” daily

- Supplemental to public communication plan

Goals included:

- Track measures that matter to customers, traveling public & WSDOT management
- Relay a broad swath of information quickly for quick comprehension



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### Internal Go-Live Monitoring: What We Did

- Daily array of graphical chart “snapshots”

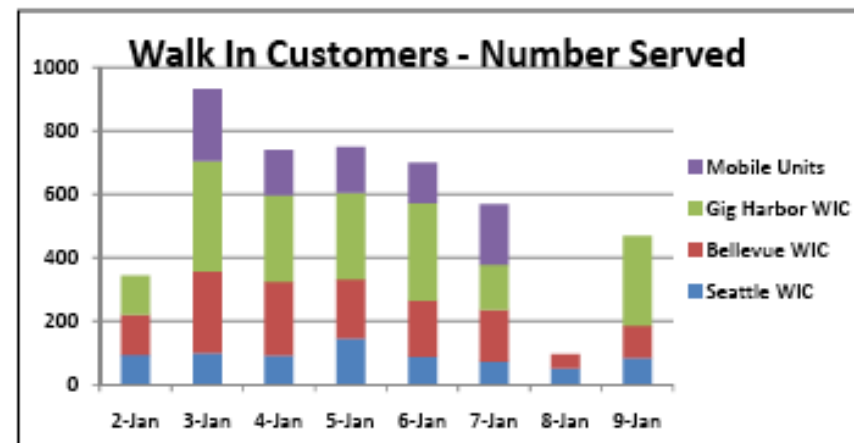
- Accompanied by brief narrative of trends, notes of irregularities or outages

- Key tool for intra-departmental communication

- Also supported media inquiries

- Data monitored both pre and post Go-Live to establish baseline

- Trends monitored near real time



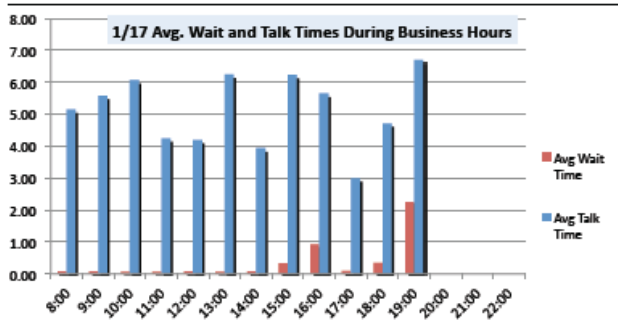
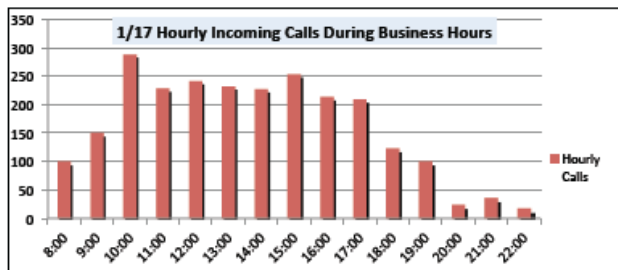
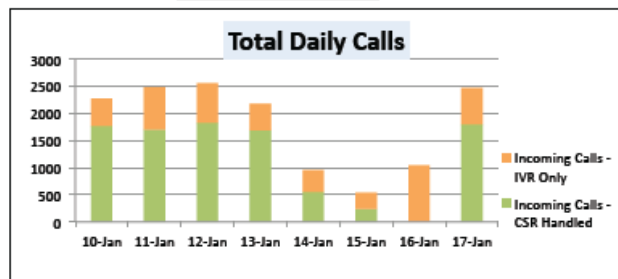
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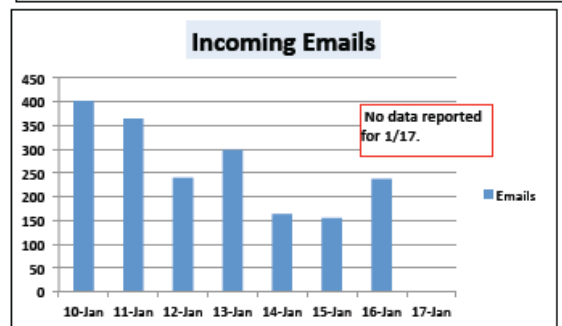
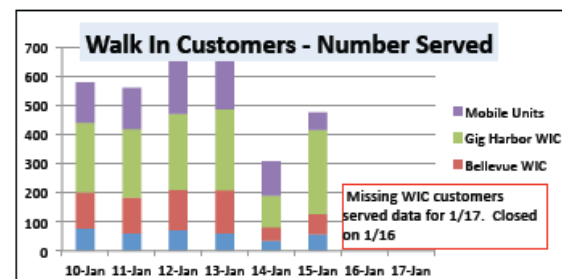
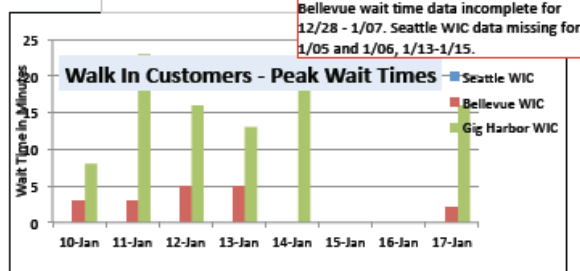
## Internal Go-Live Monitoring: CSC Focused Measures

Snapshot 1/18/12

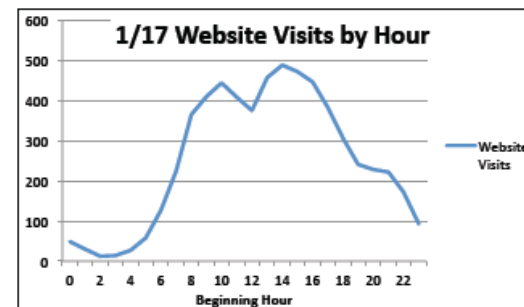
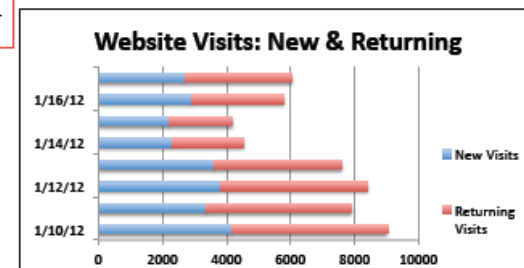
### Incoming Calls



### Customer Facing



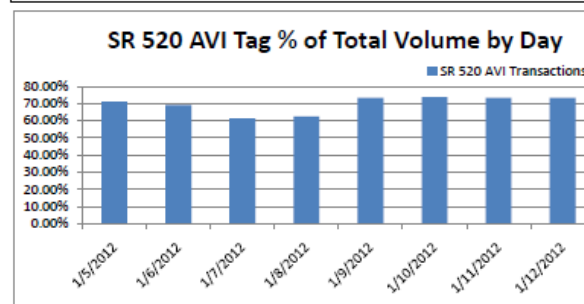
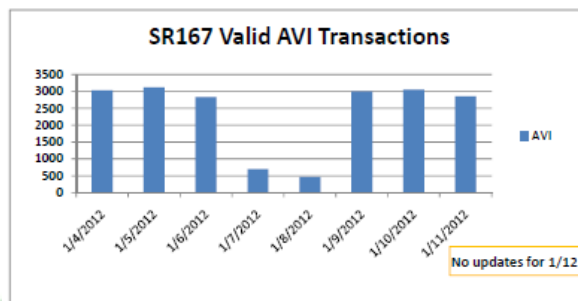
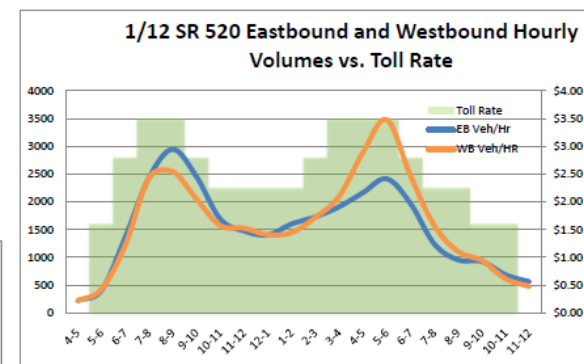
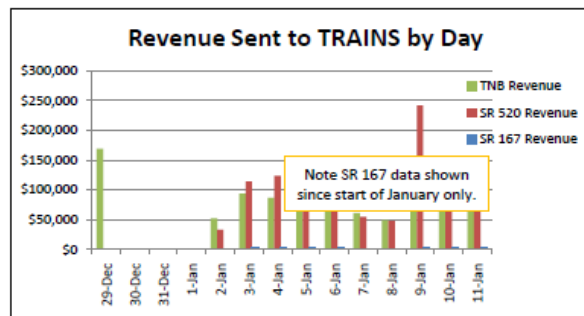
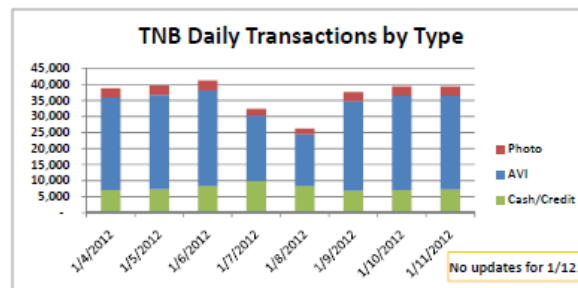
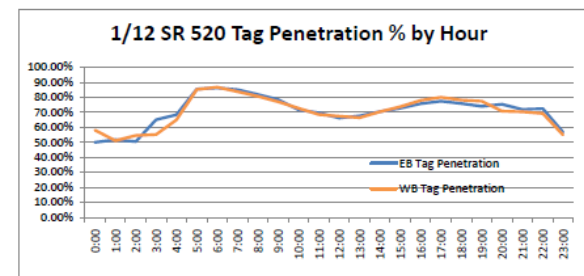
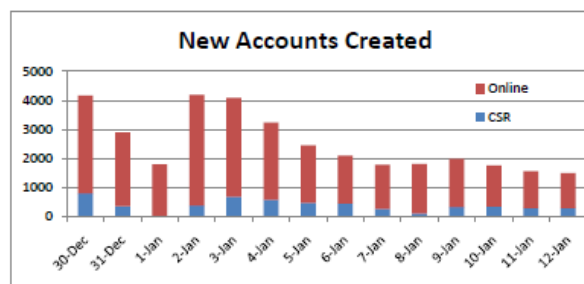
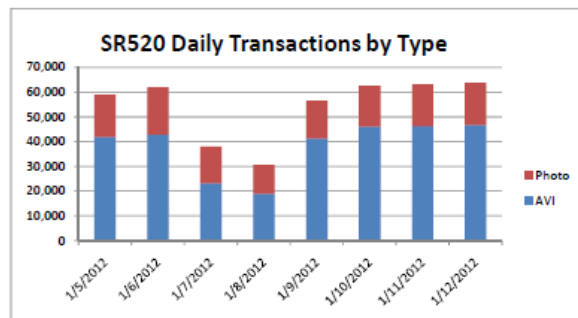
### MyGoodToGo Site



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## Internal Go-Live Monitoring: Roadside Focused Measures



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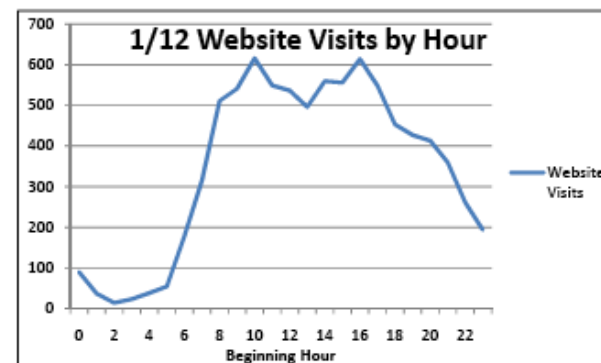
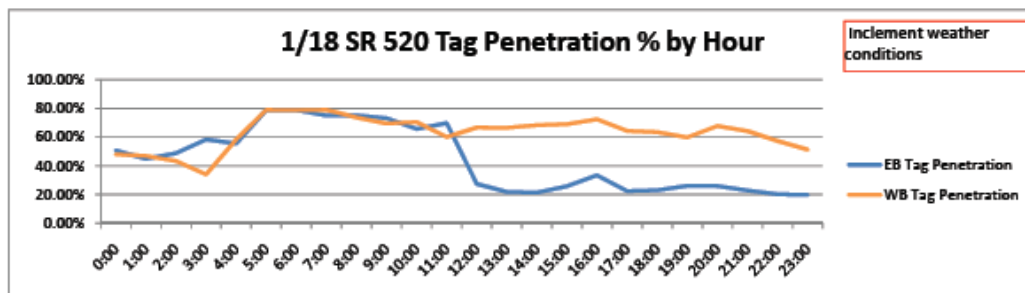
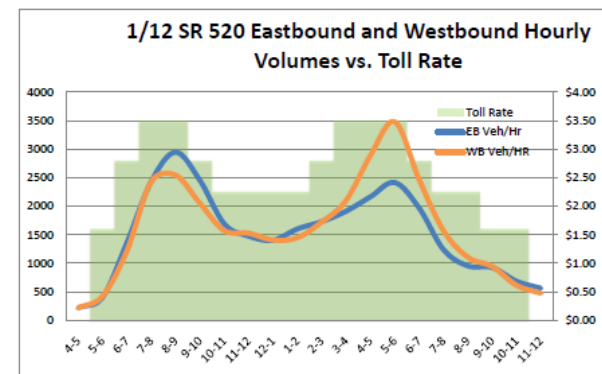
## Internal Go-Live Monitoring: Benefits & Lessons Learned

### Benefits

- Connected Stakeholders across multiple departments
- Trends within trends helped identify possible system errors

### Challenges/Lessons Learned

- Required flexibility of using draft or inferential data where data was not available



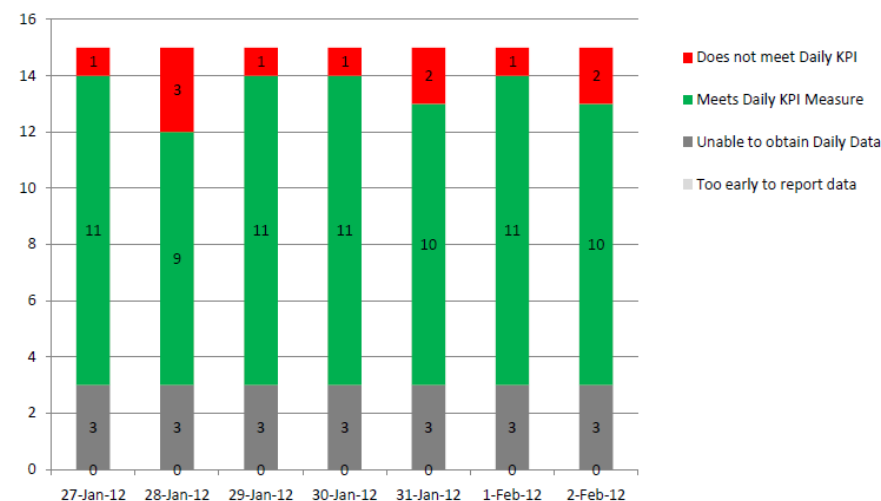
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### Upper Level Management Reporting: Background & Goals

- KPI regular reporting scheduled to happen monthly
- Goal of “No Surprises” necessitated daily KPI monitoring
  - Under burden of Go-Live & Past Delays, monitoring was done daily
  - Daily monitoring was for trending purposes only
- From over 53 KPI measures, 15 reported on daily during Go-Live
  - Based on degree of impact to customer experience & data availability

Daily KPI Measures: 1/27/2012 - 2/2/2012



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## KPI Monitoring: Examples

KPI #	Description	Measure	1-Jan	2-Jan	3-Jan	4-Jan	5-Jan	6-Jan	7-Jan	8-Jan	9-Jan
Collect and Process Tolls	100% of accounts with a valid replenishment method are attempted replenishment within 24 hours of the account falling below the replenishment threshold.	day	NA	NA	NA	NA	NA	NA	NA	NA	NA
	100% of data errors (missing or corrupt data) researched and appropriate action taken within two (2) Calendar days of notification of failed transmission.	day	NA	NA	NA	NA	NA	NA	NA	NA	NA
	100% of photo-reduced toll transactions requiring human verification reviewed within three (3) business days of the date received at the Customer Service Center	day	1	0	2	2	2	1	1		
	100% of toll transactions processed by the end of the following Calendar Day after receipt from Toll Transportation facilities.	day	NA	NA	NA	NA	NA	NA	NA	NA	NA
Operate Customer Service Center	99.5% Customer Service Center system and communications infrastructure availability, excluding scheduled maintenance, on a 24 hour seven days a week basis	infrastructure	5	0	0	0	12	0	0		
	100% of customer complaints and correspondence researched, resolved and responded to within five (5) business days of receipt	day	3	6	7	8	0	0	0		
	80% of customer inquiries responded to within two (2) business days and 100% responded to within five (5) business days.	day	1	1	2	0	1	0	0		
	100% of returned mail, for which a new address is identified, shall be re-mailed within five (5) business days of receiving the returned mail.	day	0	0	0	0	0	0	0		
Setup and Maintain Accounts	Website shall be accessible 99.5% of the time, 24/7, excluding scheduled maintenance.	infrastructure	0	0	0	0	0	0	0		
	Average wait time to speak with a CSR not to exceed two minutes	minute	0.63	0.32	0.15	0.30	0.33	0.23	0.30		
	CRM available 99.5% of the time, 24/7, excluding scheduled maintenance.	infrastructure	0	0	0	0	0	0	0		
	100% of accounts opened within two (2) business days of receipt of application.	day	0	0	0	0	0	0	0		
	100% of transponder orders are fulfilled within four (4) business days of the order request	day	1	1	2	3	2	1	1		
	Percentage of abandoned calls not to exceed 3% of all incoming calls (business hours only)	%	2.0%	1.1%	0.4%	0.7%	1.3%	0.9%	2.0%		
Finance	Process 100% of payments by end of the next business day after processing the payment	%	100%	100%	100%	100%	100%	100%	100%		

- KPI regular reporting scheduled to happen monthly
  - Collection & Processing of Tolls
  - Operation of CSC
  - Setup & Maintenance of Accounts
  - Finance

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## KPI Monitoring: Benefits & Lessons Learned

### Benefits

- Facilitated early discussions with CSC vendor to help correct lags in performance
- Sometimes bug was in the reporting system not actual performance

### Challenges/Lessons Learned

- Limited Data Available

	KPI #	Description	Measure	Thu	Fri	Sat	Sun	Mon	Tue	Wed
				2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	8-Feb
Collect and Process Tolls	10	100% of accounts with a valid replenishment method are attempted replenishment within 24 hours of the account falling below the replenishment threshold.	day	NA	NA	NA	NA	NA	NA	NA
	14	100% of data errors (missing or corrupt data) researched and appropriate action taken within two (2) Calendar Days of notification of failed transmission.	day	NA	NA	NA	NA	NA	NA	NA
	17	100% of photo-enforced toll transactions requiring human verification reviewed within three (3) business days of the date received at the Customer Service Center	day	1	0	2	2	2	1	-
	16	100% of toll transactions processed by the end of the following Calendar Day after receipt from Toll Transportation Facilities.	day	NA	NA	NA	NA	NA	NA	NA

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## Trend Monitoring: Other Uses

### Shift from Go-Live to Regular Operations

- Continued trend monitoring on a weekly then monthly basis
- Transitioned into smaller subset of key business measures

### Data collected during process feeding other external reports

- Budget planning
- TIFIA updates
- Presentations to the public
- Presentations to the Legislature and Transportation Commission



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## Beyond Go-Live

- Transitioned to Monthly Snapshots through May
- Evolved into Toll Business Report collaborated across departments

### WSDOT Toll Business Report Monthly CSC Transactions Tacoma Narrows Bridge CSC Monthly Transactions

May 2012  
Internal Use Only

#### May TNR Transactions by Payment Method

Payment Method	# of Transactions	Percent Change <sup>a</sup>	Weekday Average	Weekend Average
Good To Go! Pass	834,503	0%	29,330	33,000
Good To Go! Pay-by-Plate	41,000	10%	1,500	1,100
Pay-by-Mail	64,000	10%	1,200	1,000
Short Term Account	50	10%	2	1
Manual (Cash/Credit)	290,503	0%	8,500	12,000
Sum-Revenue	Not Avail.	Not Avail.	Not Avail.	Not Avail.
<b>Total</b>	<b>1,230,056</b>	<b>9%</b>		

<sup>a</sup> Percent change = change from last month's transactions.

Source: GoodToGo! Pass and Manual Transactions estimated from the 200 monthly operating reports. **Good To Go! Pass** by Plate and Short Term Account Transactions estimated from a query delivered by CSC Data Services. Pay-by-Mail estimated by calculating remaining transactions.

#### Transactions by Payment Method



+ Transactions increased by 9% from April

#### SR 167 CSC Monthly Toll Trips

##### May SR 167 Toll Trips

Payment Method	# of Toll Trips	Percent Change <sup>a</sup>	Weekday Average	Weekend Average
Good To Go! Pass	81,003	10%	2,430	993

<sup>a</sup> Percent change = change from last month's toll trips.

Source: GoodToGo! Pass Transactions estimated from the SR 167 monthly operating reports.

+ SR 167 Toll Trips increased about 10% in May

#### SR 520 CSC Monthly Transactions

##### May SR 520 Transactions by Payment Method

Payment Method	# of Transactions	Percent Change <sup>a</sup>	Weekday Average	Weekend Average
Good To Go! Pass	1,297,503	11%	47,300	25,700
Good To Go! Pay-by-Plate	190,003	11%	6,800	4,400
Pay-by-Mail	310,503	10%	11,300	11,000
Short Term Account	50	1%	10	20
Sum-Revenue	Not Avail.	Not Avail.	Not Avail.	Not Avail.
<b>Total</b>	<b>1,818,559</b>	<b>10%</b>		

<sup>a</sup> Percent change = change from last month's transactions.

Source: GoodToGo! Pass Transactions estimated from the SR 520 monthly operating reports. **Good To Go! Pass** by Plate and Short Term Account Transactions estimated from a query delivered by CSC Data Services. Pay-by-Mail estimated by calculating remaining transactions.

#### Transactions by Payment Method



+ Transactions increased by 10% from April

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## Thank you! Questions?

Questions?

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