



Where's the bus?

Real-Time Info & Service Alerts

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Manager, Operations & Service Delivery

Digital Cities | Smarter Transportation
7th Annual UCLA Downtown LA Forum
Japanese American National Museum
March 20, 2014

Metro Service At A Glance

Third-Largest Public Transportation System in the United States

Daily Ridership (Feb. 2014)

1,147,737 Metro Bus Boardings

352,659 Metro Rail Boardings

1,500,396 Total Systemwide Boardings

Service Area

15,967 Bus Stops

183 Metro Bus Lines

87.8 miles of Metro Rail

80 Metro Rail Stations

Lots of service, but when will it actually arrive?

A look at several other public transportation systems...



WMATA (Washington D.C.)



BART (Bay Area)



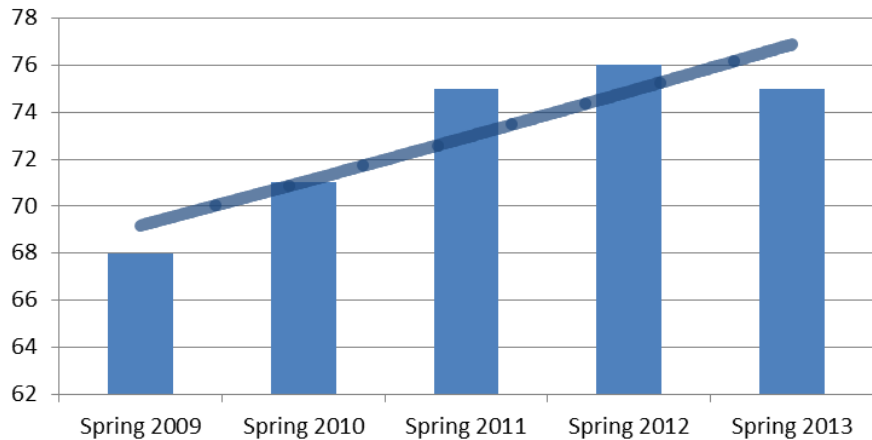
MUNI (San Francisco)



MBTA (Boston)

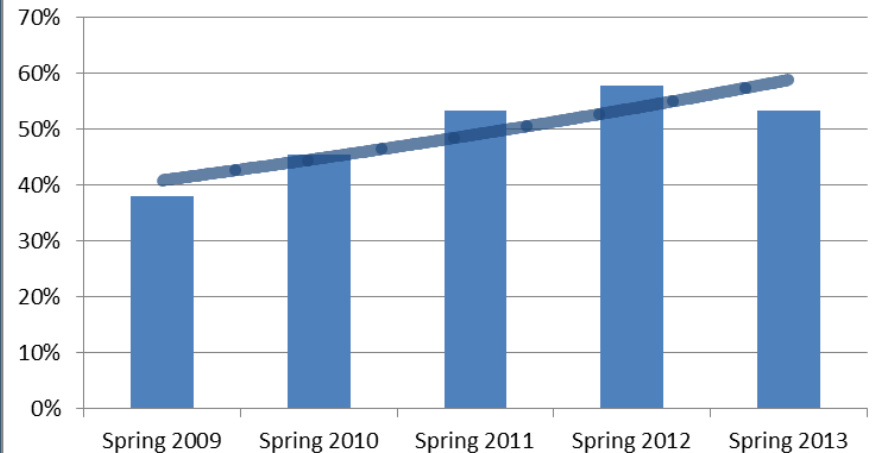
Customer Surveys Tell Us A Trend

Bus Riders with Cell Phones



75% of Metro Bus riders own cell phones

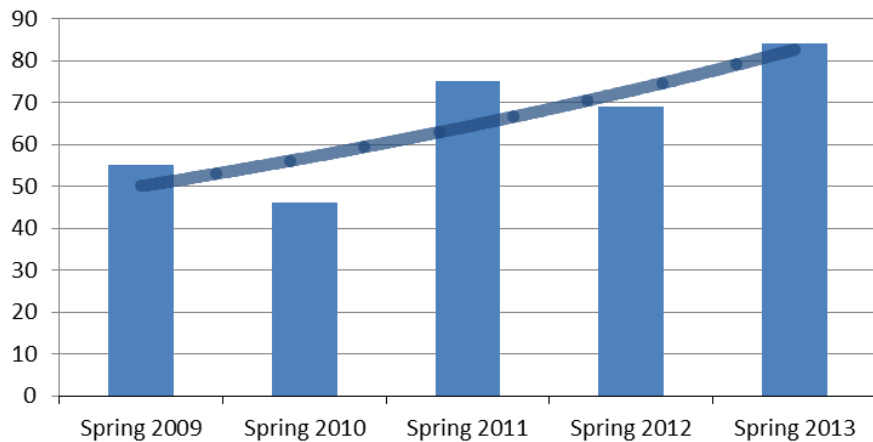
Bus Riders with Smart Phones



71% of those cell phones are smartphones (iPhone, Android, etc.)

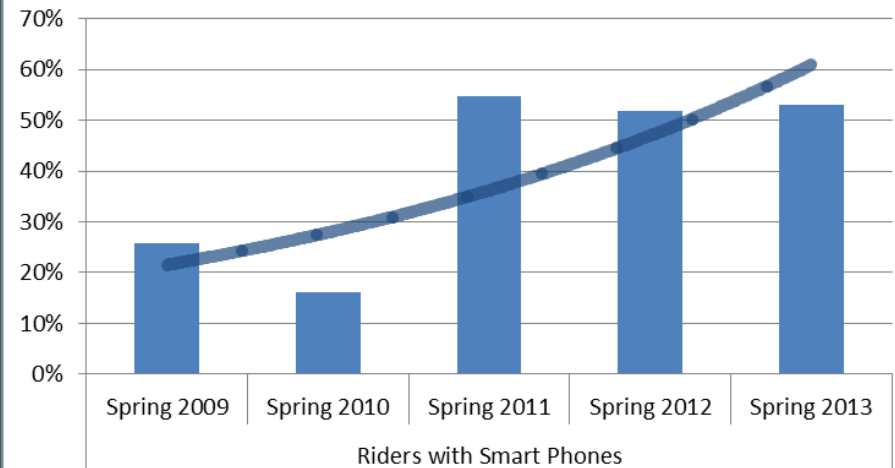
Customer Surveys Tell Us A Trend

Rail Riders with Cell Phones



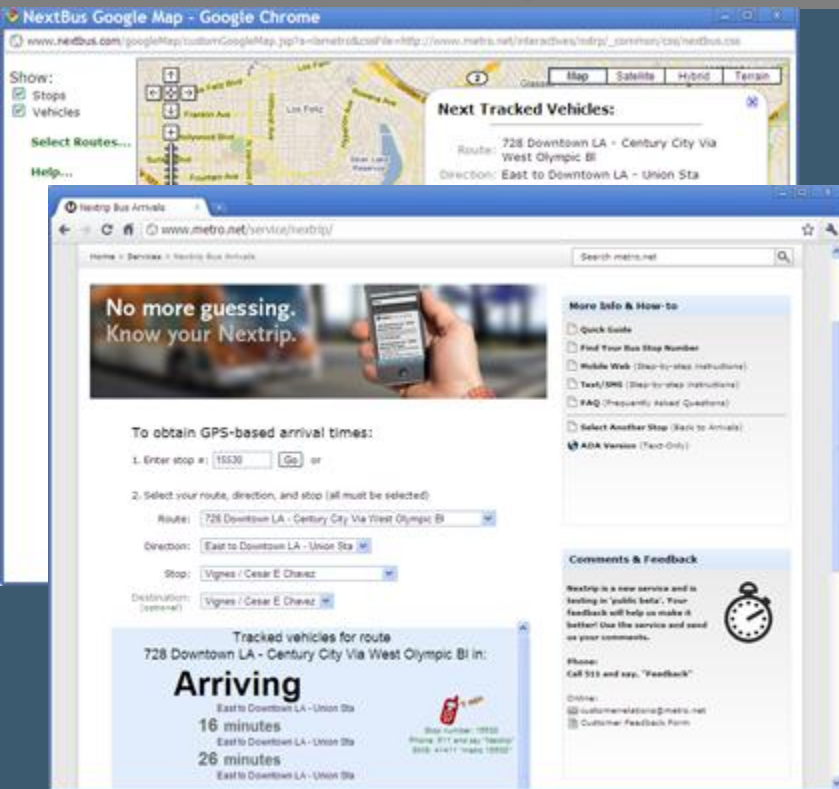
84% of Metro Rail riders own cell phones

Rail Riders with Smart Phones

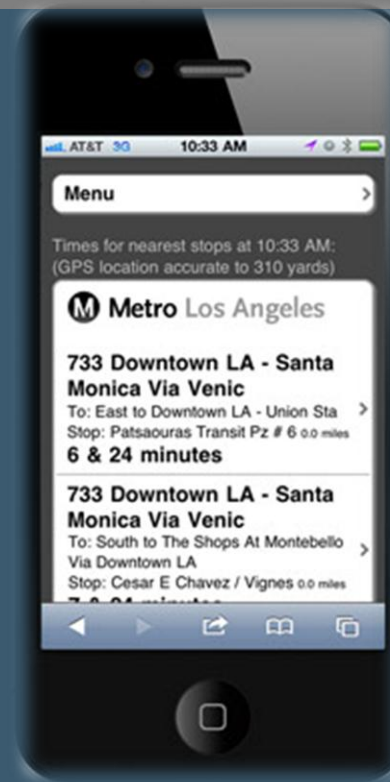


63% of those cell phones are smartphones (iPhone, Android, etc.)

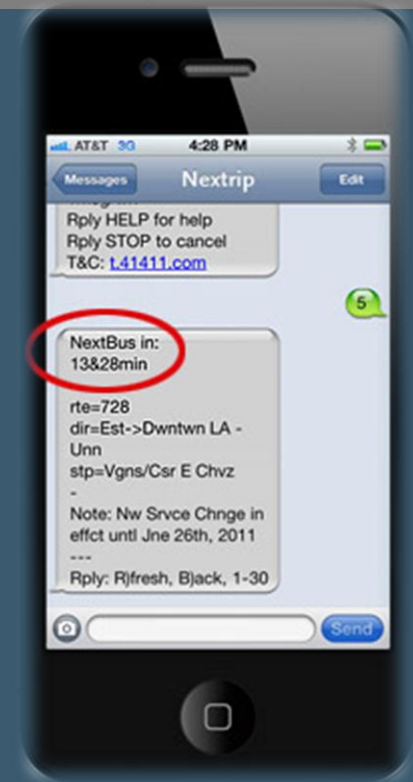
Nextrip Real-Time Arrival Information



Desktop Web
metro.net/nextrip

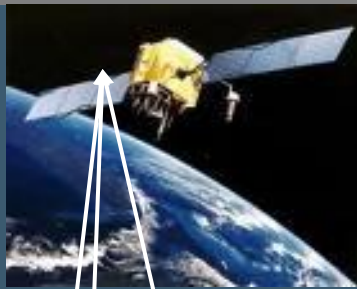


Mobile Web
nextbus.com



SMS / Text Msg
*"metro +stop ID"
to 41411*

How Nextrip Works

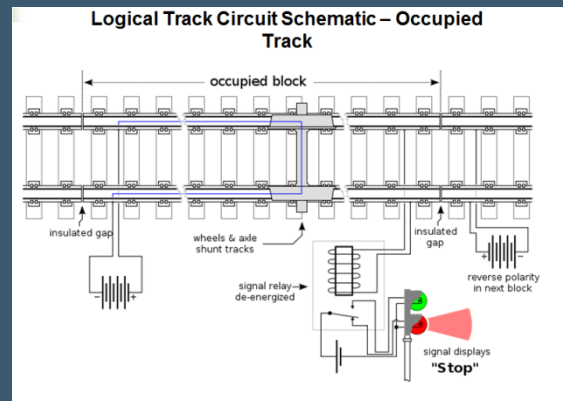



Transit Database


NextBus

Bus

Rail



 **PHONE**
Call 511

 **MOBILE WEB**
metro.net

 **ONLINE**
metro.net

 **TEXT/SMS**
sms 41411

Nextrip Bus Stop Signage



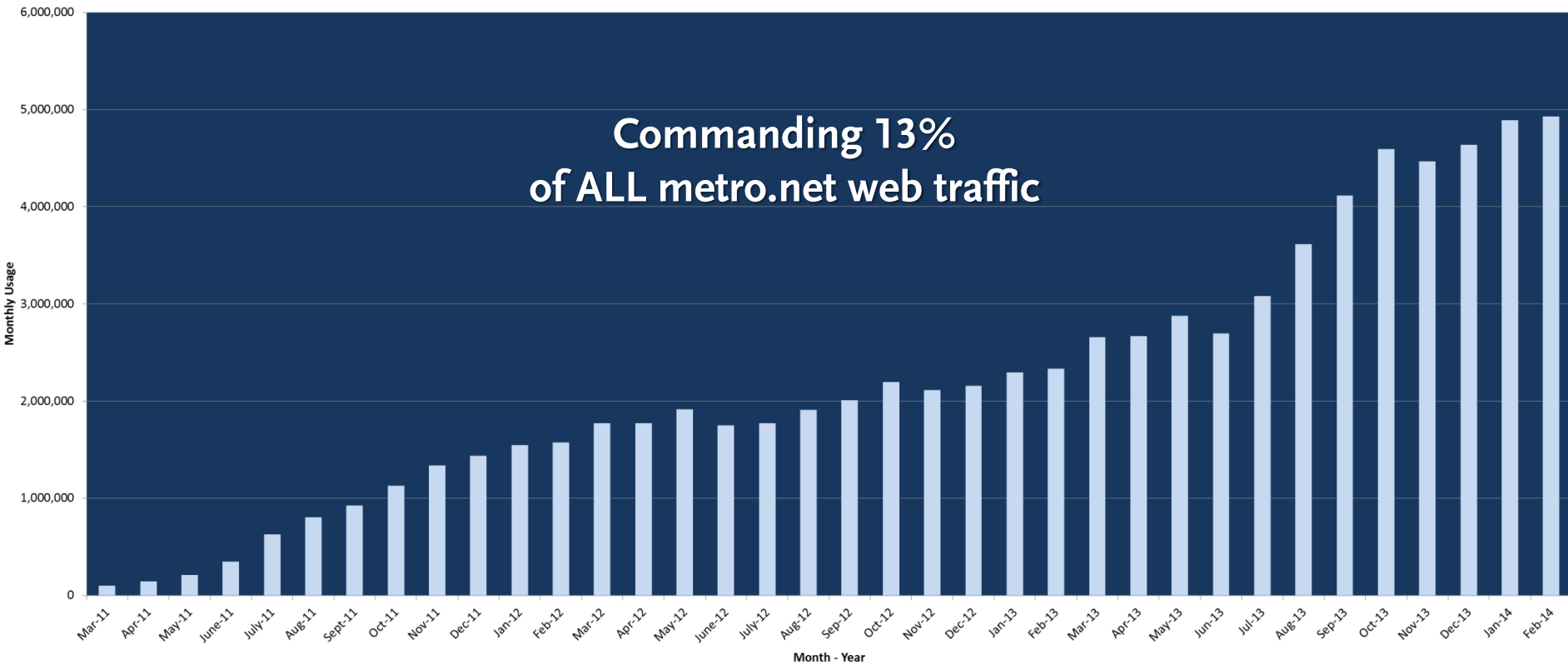
Tactile braille



QR Code technology for smartphones

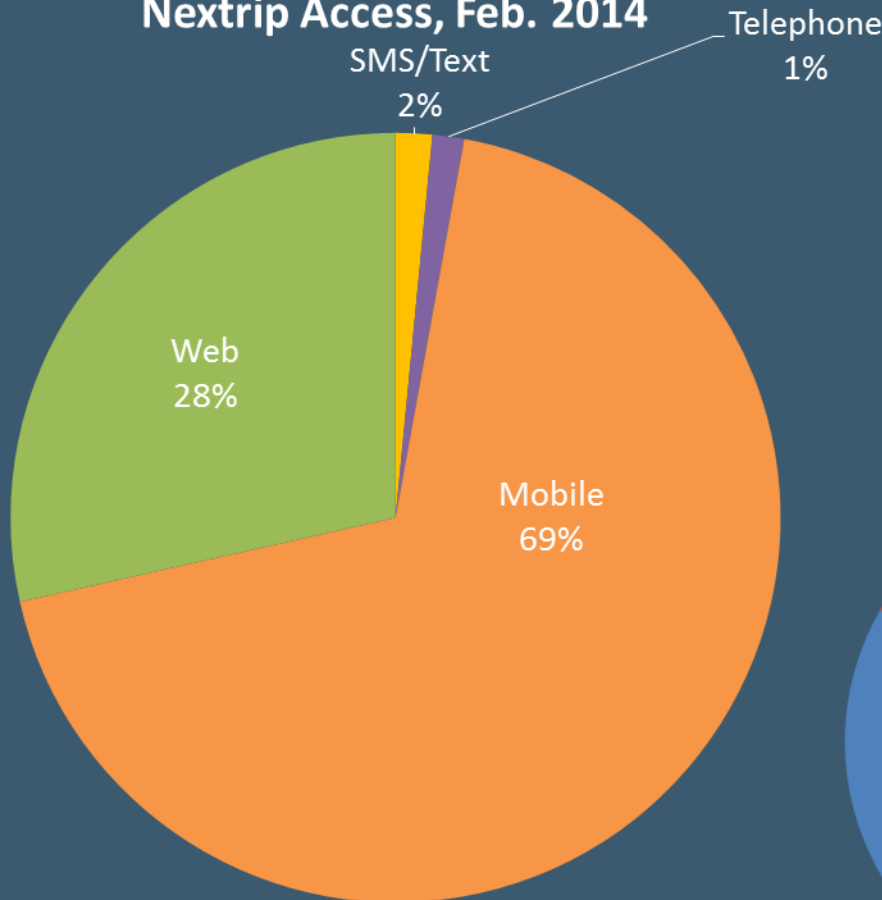
How Popular Has Nextrip Been?

Nextrip Usage



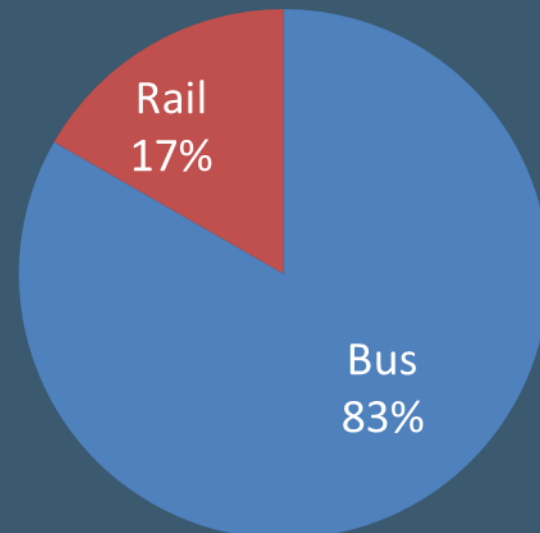
How Popular Has Nextrip Been?

Nextrip Access, Feb. 2014



Mobile Usage

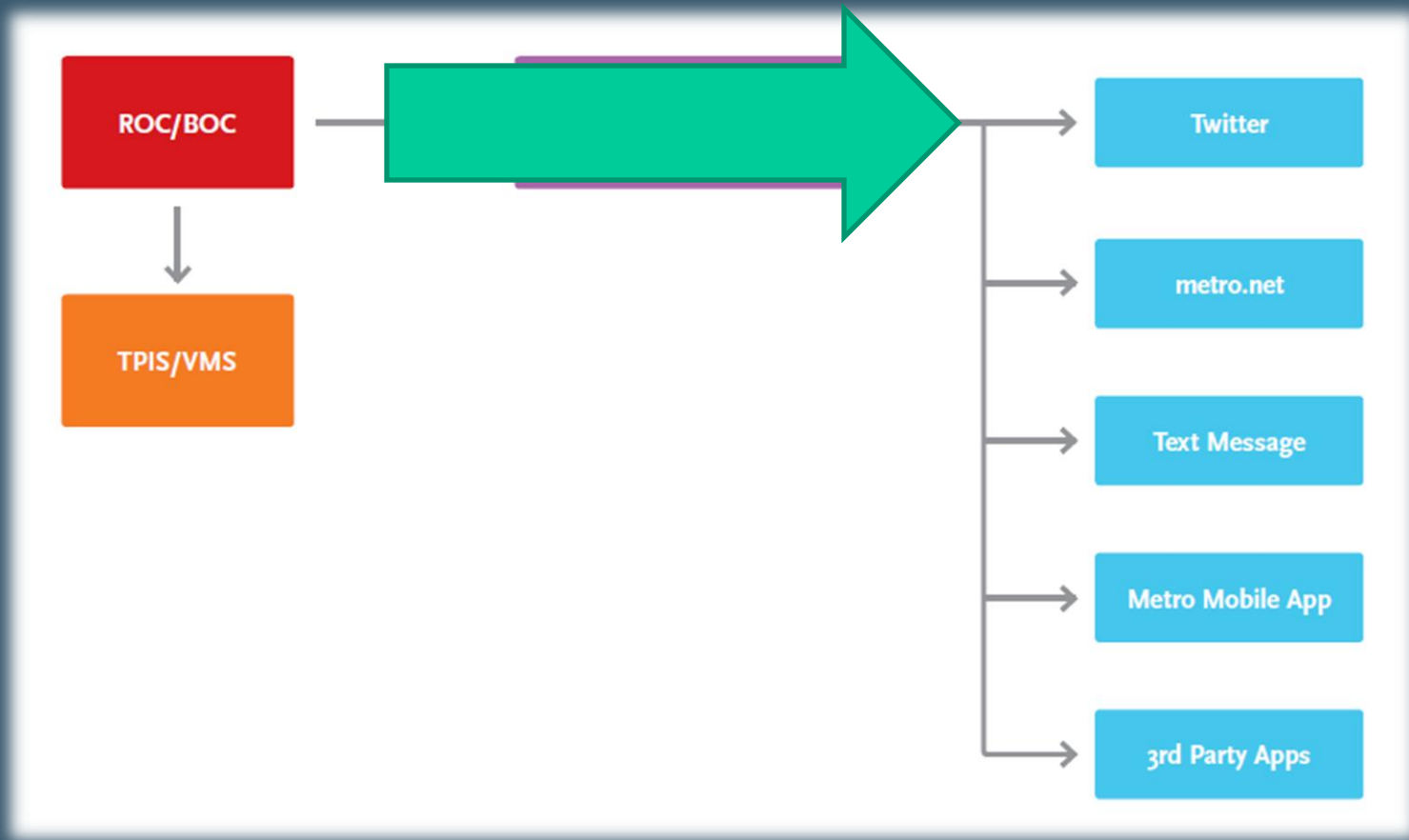
2011:	32%
2012:	51%
2013:	66%
2014 (Feb):	69%



What if service is disrupted? What are my alternates?



What is the service alerts process?



Multiple Twitter Feeds for Different Needs

Twitter Account	Content
@metrolosangeles	General news, The Source articles, two-way interaction, Service Alerts, and Elevator Outages
@metroLAalerts	Service Alerts Only
@metroLaelevator	Elevator Outages Only

Who felt the earthquake on Monday?



M
Due to a
Metro B
Update
6:33 AM - 1
152 RETWE

M
UPDATE
following
damage
6:59 AM - 1
65 RETWE

Follow
es,
in '94
★

Twitter Growth (as of Mar 2014)

Twitter Account	Followers (Subscribers)	Reach (Unique Exposure)	Impressions (Exposure)
@metrolosangeles	20,264	40,918	116,611
@metroLAalerts	8,514	16,624	325,346
@metroLAelevator	111	4,157	5,832

Balancing Service Impacts vs. Cause of Impacts

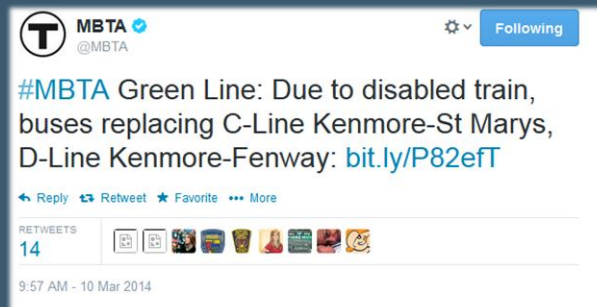


TfL Central line @centralline

The line is suspended b/n Liverpool Street & Holborn due to a person under a train. Minor delays are occurring on the rest of the line.

RETWEETS: 14

11:51 AM - 13 Mar 2014

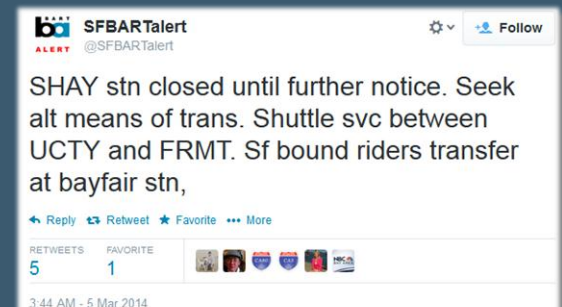


MBTA @MBTA

#MBTA Green Line: Due to disabled train, buses replacing C-Line Kenmore-St Marys, D-Line Kenmore-Fenway: bit.ly/P82eFT

RETWEETS: 14

9:57 AM - 10 Mar 2014

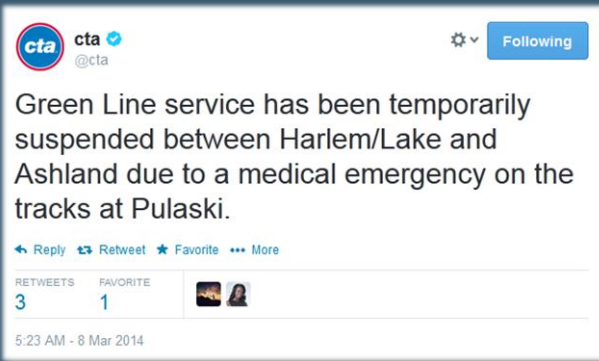


SFBARTAlert @SFBARTAlert

SHAY stn closed until further notice. Seek alt means of trans. Shuttle svc between UCTY and FRMT. Sf bound riders transfer at bayfair stn,

RETWEETS: 5 FAVORITE: 1

3:44 AM - 5 Mar 2014

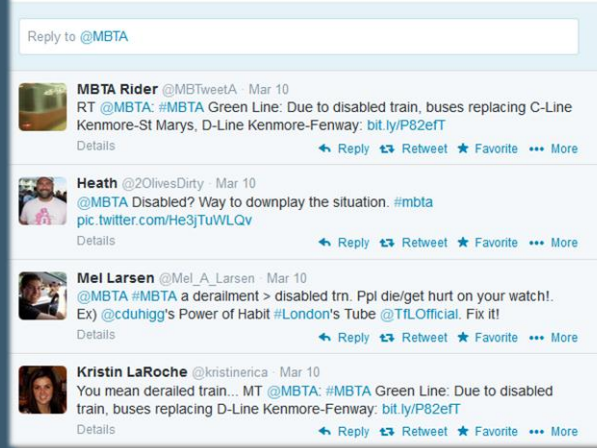


cta @cta

Green Line service has been temporarily suspended between Harlem/Lake and Ashland due to a medical emergency on the tracks at Pulaski.

RETWEETS: 3 FAVORITE: 1

5:23 AM - 8 Mar 2014



Reply to @MBTA

MBTA Rider @MBTweeterA - Mar 10
RT @MBTA: #MBTA Green Line: Due to disabled train, buses replacing C-Line Kenmore-St Marys, D-Line Kenmore-Fenway: bit.ly/P82eFT

Heath @2OlivesDirty - Mar 10
@MBTA Disabled? Way to downplay the situation. #mbta pic.twitter.com/He3jTuWLQv

Mel Larsen @Mel_A_Larsen - Mar 10
@MBTA #MBTA a derailment > disabled tm. Ppl die/get hurt on your watch!. Ex) @cduhigg's Power of Habit #London's Tube @TfLOfficial. Fix it!

Kristin LaRoche @kristinica - Mar 10
You mean derailed train... MT @MBTA: #MBTA Green Line: Due to disabled train, buses replacing D-Line Kenmore-Fenway: bit.ly/P82eFT



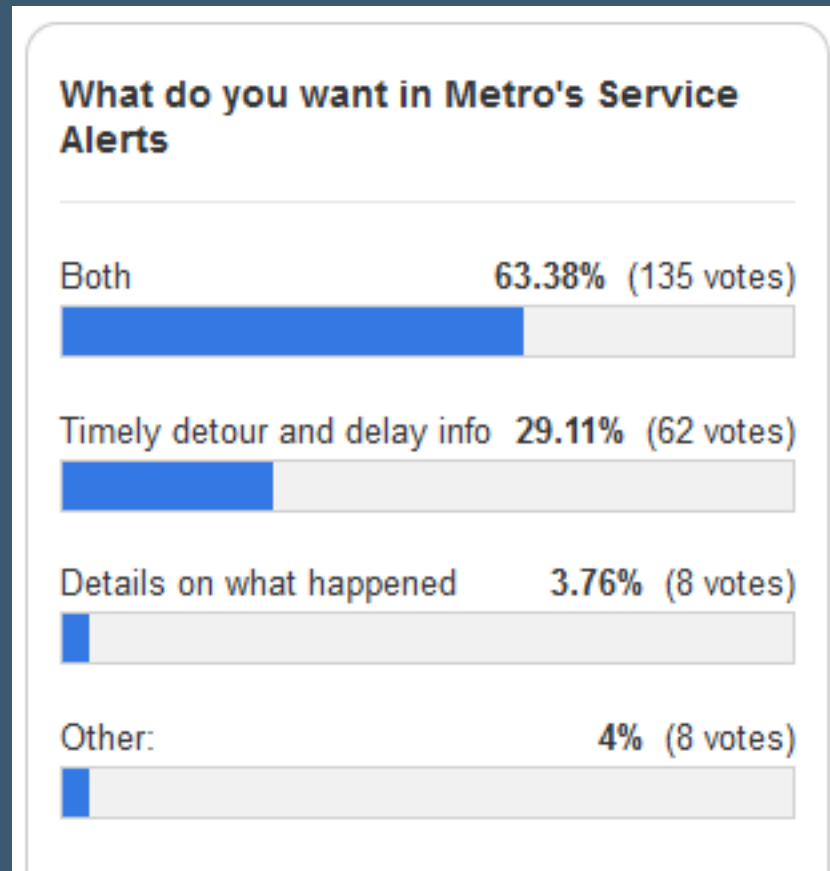
Metro-North Railroad @MetroNorth

Service into and out of GCT is temp suspended until further notice due to an explosion in a building adjacent to our tracks.

RETWEETS: 285 FAVORITES: 21

7:07 AM - 12 Mar 2014

Balancing Service Impacts vs. Cause of Impacts



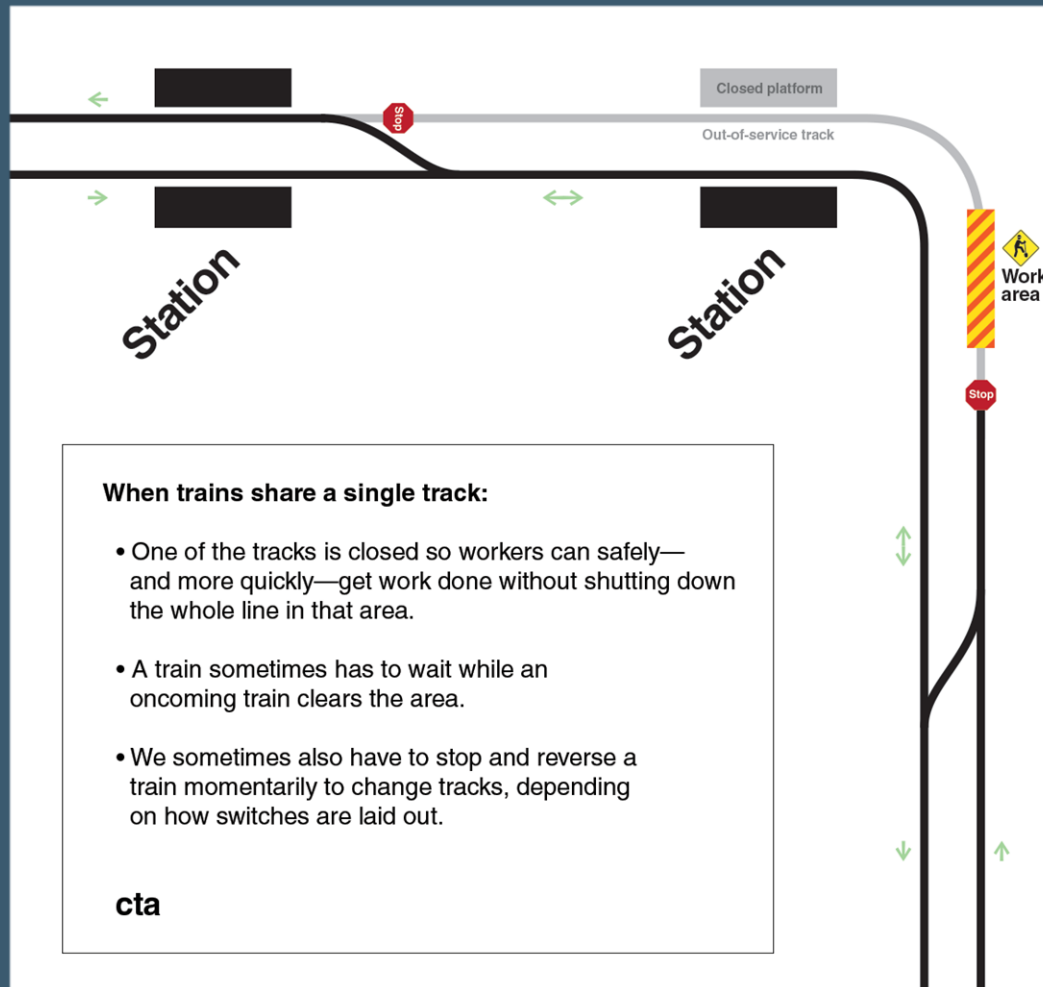
A Working Template

(____) Line up to (##) min delays due to (disabled train / track equipment issue / police activity / medical emergency) (at / near / btwn) (____) Sta. (Trains share 1 track in area. / Bus shuttles requested). Follow announcements. ^ (Initials)

Quantifying delays:

- <5 min = “minor delay” (usually caused by signal issue or restricted speed – no single tracking)
- 5-10 min = “up to 10 min” (usually caused by signal issue or restricted speed – no single tracking)
- 15 min = “up to 15 min” (caused by single tracking during off peak on light rail lines)
- 20 min = “up to 20 min” (caused by single tracking during peak hour on LRT or anytime on subway)
- >20 min = “major delay” (double block single tracking)
- Not sure? = “disruption” (caused by bus shuttle [bridge])

Rail Operations 101



Twitter Reaction

“Keep up the great work!”

“As the case all week, great keeping everyone updated.”

“You are doing an awesome job, thanks for all the updates!”

“Thank you, Metro! MT @metrolosangeles: Work crews are in process of removing the trees, thx for your patience.”

“And the delays begin. But @metrolosangeles does a good job notifying us and handling the problems. So there shouldn’t be too much of a problem.”

“Thanks for the updates. Keep this guy wrapped in cotton and well fed!”

How do I receive these alerts?

- Metro.net
 - Look for box on right sidebar
- Metro Mobile App
- Twitter & Facebook
 - Follow @metrolosangeles, @metroLAalerts, or @metroLAElevator
- Text Messaging
 - Text “metrolosangeles ON” to 40404
 - Substitute “metrolosangeles” for account of your choosing

Looking Ahead...

- *Upgraded Transit Passenger Info Screens & Rail Arrival Info* – In beta testing
- *Passenger Count Information* – lets you know if there is seat available on the arriving bus.
- *Bike Rack Status* – lets you know if there is a slot available on the bike rack on the arriving bus.
- *Google Transit* – Real-time arrival information on Google; under review.
- *Cell Reception & Wi-Fi for Rail* – provides mobile functionality in subway tunnels; est. 2016.



Thank You!

Stephen Tu

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Metro Los Angeles, Executive Office

Transit Operations | Social Media | Customer-Facing Systems

✉ tus@metro.net