

# **BART Mobile Applications**

## **-- Rider Survey--**

February 2009



**BART**  
**Marketing & Research Department**

Question or comments about this report can be emailed to [BartResearch@bart.gov](mailto:BartResearch@bart.gov)

## Background

BART currently offers trip plans, delay advisories and real-time arrival information on various mobile platforms. This survey was conducted to evaluate changes in the market and identify new mobile services that interest BART riders. BART riders with a mobile or wireless device were invited to participate in an online survey; the survey was conducted between Jan. 27 and Feb. 3, 2009.

BART riders with mobile or wireless devices were invited to participate in the online survey posted on BART's website and in the [www.mybart.org](http://www.mybart.org) weekly email. In addition, an email was sent to riders who signed up for updates on mobile services. We received more than 6,500 responses to the survey. The questionnaire is included at the end of this report.

Because this survey was targeted to BART riders with mobile or wireless devices, the results may not be representative of all BART riders. However, given the large sample size it provides an excellent representation of riders who utilize these devices.

## Findings

- Smart phones such as the iPhone and Blackberry were the mobile devices most frequently used by those surveyed, followed by iPods and other media players, regular cell phones and PDAs such as the Palm TX. Other devices noted by survey respondents included portable video game players such as the Sony PSP and ebook readers such as the Amazon Kindle.
- Existing mobile applications – both those created by BART and those from third-party developers – are not widely known and have much potential for greater use.
- Most survey respondents would prefer not to pay for trip planning or other transit applications but are willing to use ad-supported free programs.
- More than a third of respondents plan to purchase a new mobile device within one year.
- The survey did not specifically ask about WiFi and cellular coverage, however, thousands of customers mentioned them in open-ended responses. Another strong theme that emerged is customer demand for WiFi and cellular phone coverage throughout the BART system. Customers told BART they expect to be connected to get work done on their commutes, as well as for personal entertainment to pass the time.
- Suggestions for other BART mobile services included: connecting bus service, better maps, blackberry applications, train length, real time advisories, closest station, time to destination and many more were offered by respondents (a list of suggestions can be found in table 13).

**Detailed Results**

Table 1 – What type of mobile device(s) do you own?

	Frequency	Count
Smartphone (e.g. iPhone, BlackBerry)	41%	4,554
MP3/Media Player (e.g. iPod, Zune)	24%	2,711
Cell phone	22%	2,414
Other**	7%	788
Portable Video Game (e.g. PSP, Nintendo DS)	5%	531
Ebook Reader (e.g. Amazon Kindle, Sony Reader)	2%	192
I do not own a mobile device	0%	25
	100%	11,215

\*multiple responses allowed

\*\* Other includes: Palm Pilot, Palm TX and other Palm devices, Generic PDAs and laptops.

Table 2 – Do any of your mobile devices have a wireless web browser?

	Frequency	Count
Yes	89%	5,789
No	10%	632
Not sure	1%	70
	100%	6,491

Table 3 – How often do you browse the web on your mobile device?

	Frequency	Count
Daily	62%	3,933
Weekly	13%	799
Monthly	2%	127
Rarely	9%	542
Never	14%	905
Not Sure	0%	19
	100%	6,325

Table 4 – How often do you use BART's mobile website (bart.gov/wireless)?

	Frequency	Count
Daily	6%	399
Weekly	17%	1,053
Monthly	17%	1,069
Rarely	29%	1,825
Never	29%	1,836
Not Sure	2%	154
	100%	6,336

Table 5 –How frequently do you use each f these mobile applications?

	Daily	Weekly	Monthly	Rarely	Never	Not Sure
BART QuickPlanner for Palm OS	4%	11%	9%	10%	65%	1%
BART QuickPlanner for Pocket PC	2%	5%	5%	4%	82%	2%
BART QuickPlanner for iPod	2%	6%	5%	12%	74%	1%
iBART (Apple iPhone)	5%	11%	10%	5%	67%	2%
iTransitBuddy (Apple iPhone)	1%	1%	1%	2%	92%	3%
Maps (Apple iPhone/Google)	17%	22%	6%	5%	48%	1%
theNextTrain BART (Apple iPhone)	2%	2%	2%	3%	88%	3%
uniBus (Apple iPhone)	1%	0%	0%	2%	93%	3%

Table 5A –Frequency of use (combined categories)

	Daily/Weekly/ Monthly	Rarely/ Never
BART QuickPlanner for Palm OS	24%	75%
BART QuickPlanner for Pocket PC	13%	86%
BART QuickPlanner for iPod	13%	85%
iBART (Apple iPhone)	26%	72%
iTransitBuddy (Apple iPhone)	3%	94%
Maps (Apple iPhone/Google)	45%	53%
theNextTrain BART (Apple iPhone)	6%	91%
uniBus (Apple iPhone)	2%	95%

Table 6 – Would a modest, one-time charge (e.g. \$5), prevent you from acquiring a BART trip planning application for your mobile device?

	Frequency	Count
I'd be willing to pay for a BART trip planning application I liked	21%	1,232
I would not pay for a BART trip planning application	64%	3,710
Not sure	15%	894
	100%	5,836

Table 7 – Would you use a free BART trip planning application if it were supported with advertisements?

	Frequency	Count
Yes	59%	3458
No	17%	986
Not sure	24%	1400
	100%	5844

Table 8 – Do you plan on purchasing a new mobile device any time soon?

	Frequency	Count
No	52%	3,019
Yes, within one month	4%	216
Yes, within six months	15%	887
Yes, within a year	18%	1,061
Not sure	10%	604
	100%	5,787

Table 9 – If you were to purchase a cell phone or smart phone, what would you most likely purchase?

	Frequency	Count
iPhone	38%	1,052
BlackBerry	17%	461
Palm Pre	13%	375
Not sure	12%	342
Android	5%	147
Windows Mobile	5%	145
Other	2%	62
Samsung (except Windows Mobile)	1%	40
Nokia phone	1%	32
Motorola (except Windows Mobile)	1%	29
Sony Ericsson	1%	21
Nokia S60 phone	1%	16
Not likely to purchase	2%	56
	100%	2,778

Table 10 – If you were to purchase an MP3 or Media Player, what would you most likely purchase?

	Frequency	Count
Response	Frequency	Count
Apple iPod	63%	1,731
Not sure	6%	173
Zune	3%	69
SanDisk	2%	52
Other	2%	50
Creative	2%	43
Sony	1%	24
iRiver	1%	19
Cowon	1%	15
Archos	0%	9
Samsung	0%	9
Coby	0%	2
Toshiba	0%	1
Philips	0%	0
	100%	2,752

Table 11 – If you were to purchase an ebook reader, what would you most likely purchase?

	Frequency	Count
Amazon (Kindle)	30%	818
IRex	12%	319
Jinke	6%	164
Netronix	2%	59
Sony	0%	3
Other	0%	2
Not sure	0%	1
Not likely to purchase	50%	1,378
	100%	2,744



Table 12 – If you were to purchase a portable video game player, what would you most likely purchase?

	Frequency	Count
Nintendo DS	16%	429
PlayStation Portable	12%	338
Not sure	6%	168
Other	2%	57
Not likely to purchase	64%	1,761
	100%	2,753

Table 13

Representative sample of new or improved BART mobile services suggested

- Yes. Need to provide real-time arrivals, trip planning, and delay advisories with a better user interface. Look at native iphone apps. Allow customizable preferences, eg, "my favorite stations" so users don't have to select them each time.
- Yes, the option to disable weekend text messaging for delays/elevator activity. I am a weekday commuter only. I would also like the option to disable alerts between a certain time-frame. Having alerts come in at 8pm after I am home from work is just a nuisance.
- Yes, please put the BART Line affected in the title of the message.
- Yes, I would like to see an application that runs on the iPod Touch.
- Yes, an official iPhone BART app would be awesome. iBart is ok, but not as good as good as the website. Getting to the website on my iPhone takes too long so I use iBART.
- Yes! I'd love to be able to pick a station and instantly see the time of the last train for each route. For example: "I'm at Embarcadero, what's the last Bay Point train I can get home tonight?"
- Yes - something bundled together to make finding cable car, bus, BART AC Transit = make my life easier. I would use public transportation to SFO if routes were easy to find.
- Yes - points of interest near each station. In other words, if I'm going to Union Square in SF, how do I know which station to get off at?
- Yes - how long to my destination from "here" that would either utilize the GPS in the phone or a selection of nearby stations.
- www.bart.gov/wireless is nice, but it would be great to have a simpler domain that redirects such as m.bart.gov for mobile users to access (easier to tap in using a regular cell phone keypad).
- Would like to see a mobile web page that automatically recognizes that you're connecting from a wireless device. Using the regular webpage on a mobile device is impossible and annoying.
- would like an app that works on bb that can remember my daily commute routine and can update with relevant service advisories or delays
- widget for windows mobile. desktop widget for Google desktop
- whether particular stations are crowded or trains will be extra full (Giants or A's games), Howard Street Fair, Oracle-world, etc. That way one can try to avoid those stations and/or change travel windows...
- Weather at beginning/ending destinations. It could be sunny in Brentwood, but raining at SFO.
- Walking directions to destination, restaurants nearby
- Visual representation of where the trains are on the system
- Visual identification of where train is in the system, how many cars on train, etc.

verbal announcements in the form of a call

Use GPS / triangulation to provide directions to nearest BART station. Graphic interface - when station is selected shows arrival times for trains arriving in next 30 minutes (in real time, not printed schedules). GPS on trains so they appear on map in real-time

type of train (i.e. 4 car, 6 car, 8 car, etc.)

Twitter updates.

trip saver, so you don't have to do the same route all the time.

There's a twitter for the Berkeley station which can be turned on and off via mobile text messaging (for those without web access). This would be useful for at least all of the "major" stations.

The trip planning feature should include some sort of a "saved trips" feature, because I basically look at the same schedule ever

Standalone app for blackberry

Something for Blackberry!!

Some sort of SMS feed delay advisories, like a dedicated advisory twitter account.

Some indication of train occupancy would be interesting. I might take an 8:15am train if I knew that the 8:00am train was full.

SMS/text message when there's a problem on the line, but \*only\* specific to the lines I'm interested in

SMS Alerts for system delays

Since web connection gets broken so much I would like something like Quick Planner for the Blackberry

RSS status updates (all kinds), text updates of elevator status

RSS feeds of current maps and schedules

Restaurants, entertainment, events near the station I was going

Remember my favorite trips. Load up my EZ Rider card with commuter checks online.

Policy changes/updates regarding bicycles, TransLink rollout and other news the might otherwise go to email. GPS enabled directions to nearest station.

please keep sensitivity levels high for disabled (in my family's case - blind and visually impaired accessibility) as you progress with your technology choices

Physical map showing the actual physical locations of BART stations. Ideally with a way to see the cross streets. It's currently very easy to figure out how the stations link together, but very difficult to figure out where those stations actually are on a map.

Nextbus link in. See AC Transit or LBNL bus services for more information.

MUNI offers bus times by text message (send a text query, get a text response), and this would be helpful for BART as well. Only some have web access on their mobile devices, but virtually all have texting capabilities.

Multiple trip planning(eg two routes), favorite saved bart stations all displayed and updated on one page

iTouch application - no wireless required

It would be nice to see which stations have what bike storage facilities, eg bikelink e-lockers, keyed lockers, or covered(or not) bike racks

It would be nice to see a link with Yelp.com to search for businesses and attractions near each BART station.

it would be nice to get the newsletter in a PDF that is tagged for mobile use, so I could read it on my PDA instead of in paper.

it would be nice to fine out what hotels are close to each station

I'd really like a BART application for the Storm, with trip planning and (when it's able to update via the cell network) real-time arrivals/delays/alerts. (Note that the Storm cannot use WiFi.)

I'd love if the estimated arrivals would update more frequently.

I'd like to see an offline schedule application that remembers my station and tells me when the trains are coming.

I'd like to see an official BART app for the iPhone.

iBart can't calculate transfers so I instead use web version.

I wish I didn't have to rely on my browser, as sometimes I have no reception. I prefer the download I had on my old Treo which was not browser-based. I also want to see a static map to check on stations & routes.

I recommend looking in the Apple App store at the reviews of iBart - there's a lot of good suggestions there, I think. I'd like to be able to text/email myself the schedule section I looked at, or at least have it come up again when I restart the app. I'd also love to save frequent searches or at least set a default start station.

I didn't even know that existed. Advertise it!

I board at Pleasant Hill in the morning. I would like a way to determine whether an arriving train is originating at PH so that it is empty, so I know to skip the earlier full train.

Honestly, you should work on the look. My story is that I downloaded the schedule to my iPod, then a couple years later got an email about this survey. I checked out the website for mobile wireless devices and checked it out. The information is helpful, but the format is a challenge to read. There's no reason you shouldn't be able to present it in a more readable format. As to charging a fee, that is ridiculous and no one will pay. It's already practically cheaper to drive than take Bart, and your services are questionable, including delays and noise and dangerous characters. The only time I've ever seen cloth seats where disease can fester was in Chicago, where a driver refused to sit down. As to advertisements, they're a double-edged sword, aren't they? If they get in my way, I won't use it.

Highlight advisories and add optimizer link anchor # tag to skip nav

Give alerts to riders taking trains that stop going to a certain station at certain times. i.e. when taking BART to SF from Berkeley Ashby - rider must connect- get off train and take a different train etc.

Geo enabled trip planner to saved destinations. 9/10 times I'm using BART to get to home or work. So most of my needs are finding out when the next train is going to be available TO my predetermined destination FROM where I'm at right now. Thus I most often leave and arrive from the same stations and want to quickly find out when MY train is arriving. These are way fewer options than a typical planning app (which is more of a computer experience).

Event alerts, like concerts and ballgames, which will cause a significant increase in ridership Estimate Time of Arrival (ETA), or the most current updates of train schedules (delays, station closures, etc.)

Elevator service announcements

connections to other transit systems (i.e., Muni, AC Transit or SamTrans)

Connections to other transit agencies even if its just the bus numbers or trains that you can connect to

Combine the functionality of the Bart Quick Planner for Palm OS with the Apple iPhone. Save schedules to the iPhone for quick reference and make the fonts large enough to read.

Chat, money saving opportunities, local contests

Better and more up-to-date delay advisories. Even a 10min. delay should be marked as such.

Allow customization of alerts to particular train lines at specific times that the user can chose. I had to unsubscribe to wireless alerts because I would get a barrage of text messages about events that would have not affect me because either they were at different times or on completely different areas from where I normally take BART.

Alerts to service delays via text to be more accurate, and delivered sooner

Alarm to begin my trip to BART (plan a train and add in walking lead time)

Actual information about delays in the system instead of occasional advisories... on most occasions when trains are late the web page shows "No Advisories at this time"

Able to enter/exit fare gates with device.

Ability to recharge your BART ticket through your mobile phone.

ability to purchase tickets from phone and then use phone to enter system via on screen barcode

A splash page with delays ore service interruptions summarized.

A specific Blackberry app

A native application for the Apple iPhone, downloadable from the iTunes app Store.

A mobile trip planner for windows mobile (NON-touch screen) devices - so it can be accessed on the phone WITHOUT accessing the web

A map function that illustrates the entries, exits at each BART station. For example, at the Montgomery station, I can exit up to Market or exit to an adjacent street. Would be nice in my advance planning to know the BART station layout.

A fare calculator

A downloadable schedule for RIM devices

A better system map.

a better overall map picture; or maybe to be able to zoom in closer to the stations; maybe even have a picture of the station when you tap on the name, and/or station info like the address, etc.

A better map for iPhone. The mobile website is low resolution, and the iPod version is impractical to use.

A "back riding" calculator, or estimator would be interesting. For instance, if you're waiting at the end of a long line at Embarcadero heading to the East Bay, you can hop a train on the other platform to travel to an earlier station (like Montgomery or Powell) and increase your chances of getting a seat on full trains. Not knowing if you have time to make it to the earlier station involves some math involving time and distance between stations. It would be cool to be able to quickly calculate (based on the current time) whether you have time to ride back to an earlier station to catch your incoming train.

System maps and location info of each BART stop

sort option on quick planner for only bike allowed trains

some way you could text to see the next train. I have found at most stations you cannot see when the next train is until you are DOWN at the platform (except for Montgomery street) it would be nice to send a text and see when the next train is.

Small maps of the cross streets for each station, perhaps?

Push services (i.e. SMS alerts) for things delay advisories. Configurable for certain trains and times.

One thing I noticed, the mobile site was not able to tell me the closest station...(at least I couldn't find it)

Link to the "Map" feature that jump to map application indicated around the station when click the name of the station.

It would be great to track teh parking lot "full" level before one drives to a station. Like the metered parking structures or the airport.

I'd like a schedule I could download to my Linux netbook. It's WiFi, not cell, so it's not always online the way an iPhone is. If it was just stored in there, I'd use it. Thanks.

I would like to see an off-line trip planner for the blackberry similar to what you offer for Palm.

I would like to see an easier status page for a given set of stations

I would like to see an automatic update that can be downloaded

1. Stored BART current schedules and map that does NOT require a wireless connection to access. 2. Unified BART, Muni schedule / routes in San Francisco, like Tube San Francisco, but with buses

## Questionnaire



**BART currently offers trip plans, delay advisories and real-time arrival information on various mobile platforms. In our continuing effort to serve mobile customers, we're evaluating the market for new mobile services.**

**Please take a few minutes to complete this brief rider survey.**

**1. What type of mobile device(s) do you own?**

- Cell phone
- Smartphone (e.g. iPhone, BlackBerry)
- MP3/Media Player (e.g. iPod, Zune)
- Portable Video Game (e.g. PSP, Nintendo DS)
- Ebook Reader (e.g. Amazon Kindle, Sony Reader)
- I do not own a mobile device
- Other \_\_\_\_\_

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**2. Do any of your mobile devices have a wireless web browser?**

- Yes
- No
- Not sure

**3. How often do you browse the web on your mobile device?**

- Daily
- Weekly
- Monthly
- Rarely
- Never
- Not Sure

**4. How often do you use BART's mobile website ([bart.gov/wireless](http://bart.gov/wireless))?**

- Daily
- Weekly
- Monthly
- Rarely
- Never
- Not Sure

5. How frequently do you use each of these mobile applications?

Daily Weekly Monthly Rarely Never Not Sure

BART QuickPlanner for Palm OS

BART QuickPlanner for Pocket PC

BART QuickPlanner for iPod

iBART (Apple iPhone)

iTransitBuddy (Apple iPhone)

Maps (Apple iPhone/Google)

theNextTrain BART (Apple iPhone)

uniBus (Apple iPhone)

6. Do you currently use any other BART-related mobile applications not listed in Question 5? If so, please identify them:

Three horizontal lines for text input.

7. For wireless web devices, BART currently offers trip planning, real-time arrivals, delay advisories and text alerts. Are there other BART mobile services you'd like to see?

Three horizontal lines for text input.

8. Would a modest charge (e.g. \$5), prevent you from acquiring a BART trip planning application for your mobile device?

- ☐ I'd be willing to pay for a BART trip planning application I liked
☐ I would not pay for a BART trip planning application
☐ Not sure

**9. Would you use a free BART trip planning application if it were supported with advertisements?**

- Yes
  - No
  - Not sure
- 

**10. Do you plan to replace your mobile device any time soon?**

- No
  - Yes, within one month
  - Yes, within six months
  - Yes, within a year
  - Not sure
- 

**11. If you were to purchase a cell phone or smartphone, what would you most likely purchase?**

- Android
- BlackBerry
- iPhone
- Motorola (except Windows Mobile)
- Nokia phone
- Nokia S60 phone
- Palm Pre
- Samsung (except Windows Mobile)
- Sony Ericsson
- Windows Mobile
- Other \_\_\_\_\_
- Not sure
- Not likely to purchase

**12. If you were to purchase an MP3 or Media Player, what would you most likely purchase?**

- Apple iPod
- Archos
- Coby
- Cowon
- Creative
- iRiver
- Philips
- Samsung
- SanDisk

- Sony
- Toshiba
- Zune
- Other \_\_\_\_\_
- Not sure
- Not likely to purchase

**13. If you were to purchase an ebook reader, what would you most likely purchase?**

- Amazon (Kindle)
- IRex
- Jinke
- Netronix
- Sony
- Other \_\_\_\_\_
- Not sure
- Not likely to purchase

**14. If you were to purchase a portable video game player, what would you most likely purchase?**

- Nintendo DS
- PlayStation Portable
- Other \_\_\_\_\_
- Not sure
- Not likely to purchase

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**15. Any other comments related to BART information on mobile platforms?**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Thanks for completing the survey. Please click the [submit survey](#) button below.**