SFMTA
Municipal
Transportation
Agency

The Next Generation Customer Information System

Citizens' Advisory Council (CAC)
April 6, 2017

WHY NOW?

2000

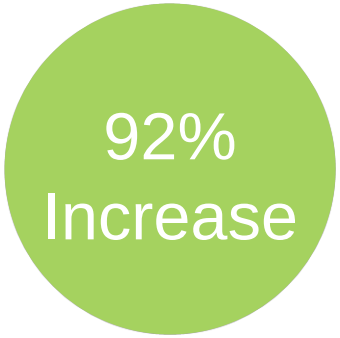
2017

NEXTbus

DRAFT

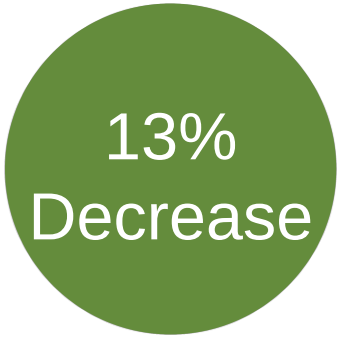
EXISTING RESEARCH

1.7%: Increase in New York City weekday ridership



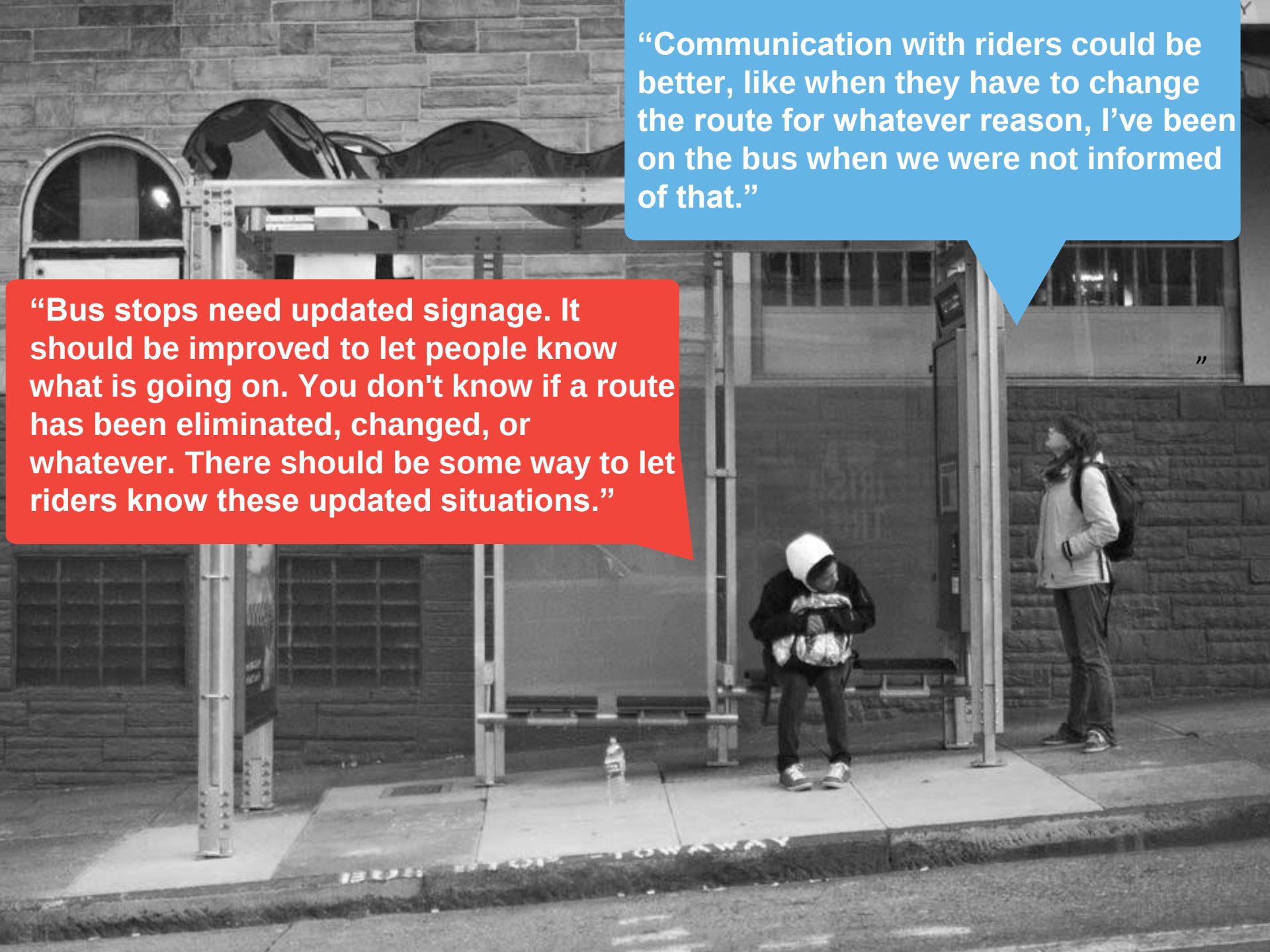
92%: Seattle customers reporting increased satisfaction with public transportation

2 minutes: Waiting time savings for mobile real-time information users compared to customers using a schedule



13%: Decrease in perceived waiting time

Source: OneBus Away Research Project


“Communication with riders could be better, like when they have to change the route for whatever reason, I’ve been on the bus when we were not informed of that.”
”
“Bus stops need updated signage. It should be improved to let people know what is going on. You don't know if a route has been eliminated, changed, or whatever. There should be some way to let riders know these updated situations.”

GOALS & OBJECTIVES

Provide world class real-time information

Offer alternatives during long waits or service delays

Retain customers who might otherwise use less sustainable transportation modes

Increase discretionary and off-peak ridership

Increase public confidence in Muni so that customers can take transit to their destinations quickly and reliably

Current

Leaves Chinatown

Bus detoured due to Market Street special event

Connecting bus route also detoured

Doesn't know where to transfer

After getting lost, spends extra money to ride Uber to Upper Haight and arrives late to work

Shelter sign shows next vehicle arrival

Shelter sign erroneously shows connecting bus arrival at regular transfer stop

Future

Leaves Chinatown

Bus detoured due to Market Street special event

Connecting bus route also detoured

Transfers to Muni Metro

Arrives in Upper Haight on time after a short walk from the train

Shelter sign shows next vehicle arrival

Screen on-board bus alerts customers of route detour

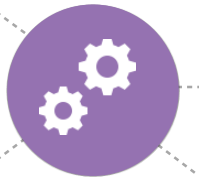
Screen on-board bus shows all connecting transit routes and arrival times at transfer point

Shelter sign at transfer point shows detour for regular connecting bus and suggests a potential Muni Metro alternative

SYSTEM ELEMENTS

Surface Vehicle Locations
Gathers vehicle locations from CAD/AVL System

Underground Locations
Gathers vehicle locations from Automatic Train Control System



Intelligent Predictions Software
Applies logic and algorithms to generate predictions, recommended alternatives, and other valuable information to be uncovered through further user research

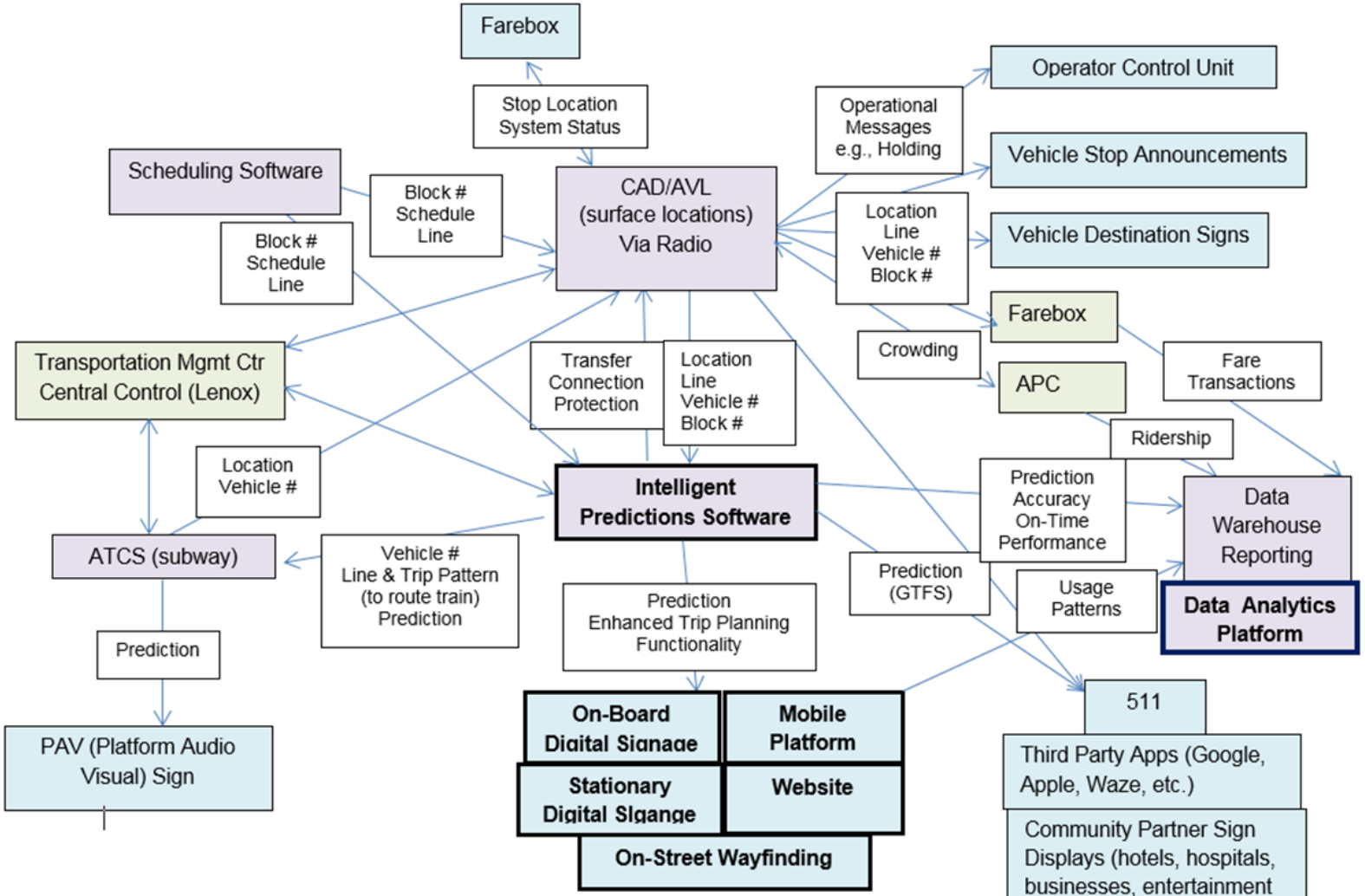
Analytics Platform
Processes data from the Intelligent Predictions Software, Mobile Platform & Website to assist in operational and usage analysis

Stationary Digital Signage
Displays real-time arrivals and other valuable information at shelters, underground stations and on rail platforms

On-Board Digital Signage
Shows service updates, transfer connection times and other information on-board vehicles.

Mobile Platform & Website
Delivers travel information in mobile and online formats; app collects customer behavior insights to inform planning decisions

AN INTEGRATED SYSTEM



Bold font: Vendor-provided components under the RFP
Regular font: Third-party provided components (requires integration)

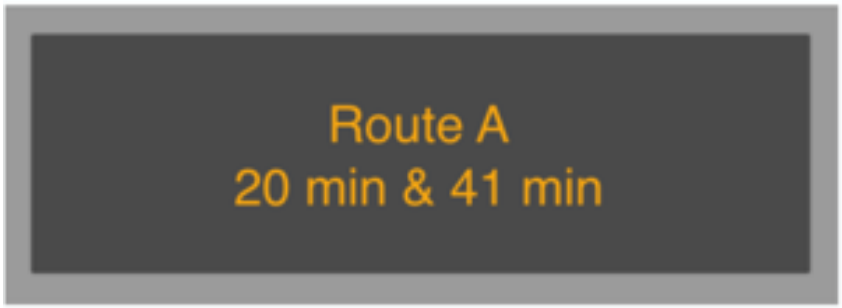
Envisioned Features

SYSTEM FEATURES

System Features	Current	Future
Intelligent Predictions Software		
Prediction Algorithm	✓ (generally accurate but "ghost bus" issues exist)	✓
Crowding Level Alerts	x	✓
Alternative Route Suggestions	x	✓
Connections with other systems	x	✓ (depends on API availability)
Stationary Digital Signage		
Powered Shelters	✓	✓
Unpowered Shelters	x	✓ (depends on technical feasibility)
On-Board Digital Signage		
Stop Announcements	✓	✓
Transfer Connection Times	x	✓ (depends on technical feasibility)
Service Delay & Reroute Alerts	x	✓ (depends on technical feasibility)
Mobile Platform		
Mobile App	✓ (limited capabilities)	✓
Usage Trends	x	✓

PREDICTIONS AND ALTERNATIVES

CURRENT



Sign with arrivals

FUTURE

Sign with arrivals and
potentially better alternatives

(Note: Photos do not imply SFMTA endorsement of a particular vendor.)

STATIONARY DIGITAL SIGNAGE

CURRENT

FUTURE

LCD Stationary Digital Signs

ON-BOARD SIGNAGE

CURRENT

- Display next stop

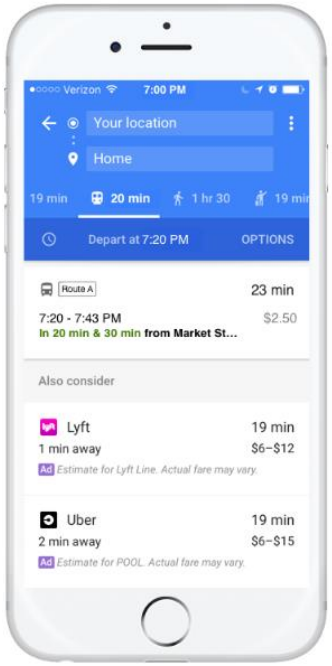
FUTURE

- Display connecting routes and arrival times
- Show nearby points of interest
- Provide updates on detours and delays

(Note: Photos do not imply SFMTA endorsement of a particular vendor.)

MOBILE PLATFORM

CURRENT



Third parties display arrival info
No data on usage patterns

FUTURE

Build a mobile platform
Gather customer insights on Mode choice, Wait tolerance, Abandonment, Latent Demand, Long-Term Retention

(Note: Photos do not imply SFMTA endorsement of a particular vendor.)

Public Outreach

Key Objectives

- Understand how different customers characterize, locate, and use valuable information (late at night/early morning travel, multiple transfers, transfers to external systems, etc.)
- Understand contextual factors, reasoning, and motivations behind mode choice and information needs.
- Identify usability issues across the current customer information system user experience
- Identify desired features and improvements for the next generation system

OUTREACH STRATEGY

Methods

Quantitative
Online Survey

+

Qualitative
Concept Testing
Stakeholder Interviews
Ride-alongs

Specific Community Stakeholders

BART, Caltrain and other transit agencies	SF Board of Supervisors (including constituent representative from each district)
Chinatown Community Development Center (CCDC)	SFMTA Policy and Governance
Hotel Council	SF Travel
Mayor's Office	Senior Action Network
Mayor's Office on Disability	Small Business Commission
SFMTA Citizens' Advisory Council (CAC)	Transit Riders Union
SFMTA Multimodal Accessibility Advisory Committee (MAAC)	Youth Commission

Questions?