



# Clipper® Next Generation Fare Collection Update

SFCTA Plans & Programs Committee

July 15, 2014

# The Clipper® card allows seamless travel between all of the major Bay Area transit agencies



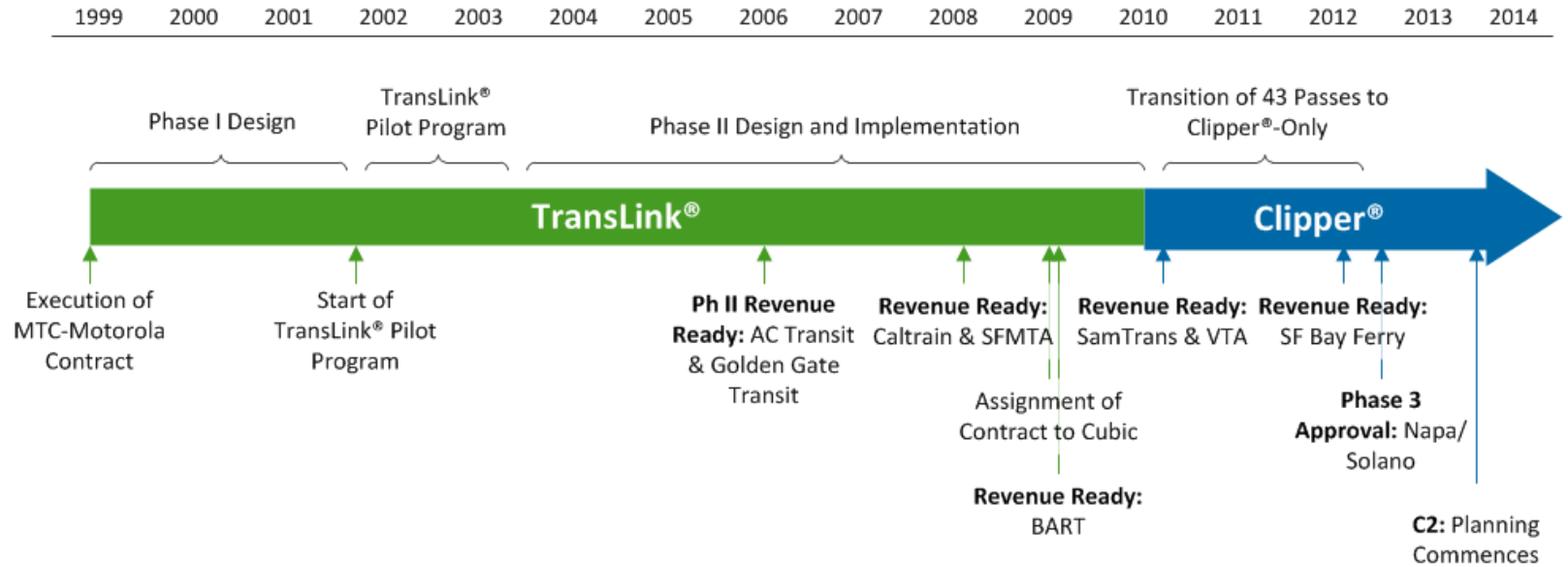
- Clipper is available on the 8 largest Bay Area transit systems:
  - Available to 95% of all riders
  - 1.4 million active cards
  - Processing \$35M/month
- ❖ ***Milestone Eclipsed! Clipper processed over 20 million fee-generating transactions in the months of April and May 2014!***
- Expansion underway:
  - Napa/Solano bus operators in 2014
  - East Bay suburban bus operators by 2015
  - Sonoma Co. bus operators by 2016
  - SMART will be Clipper-only



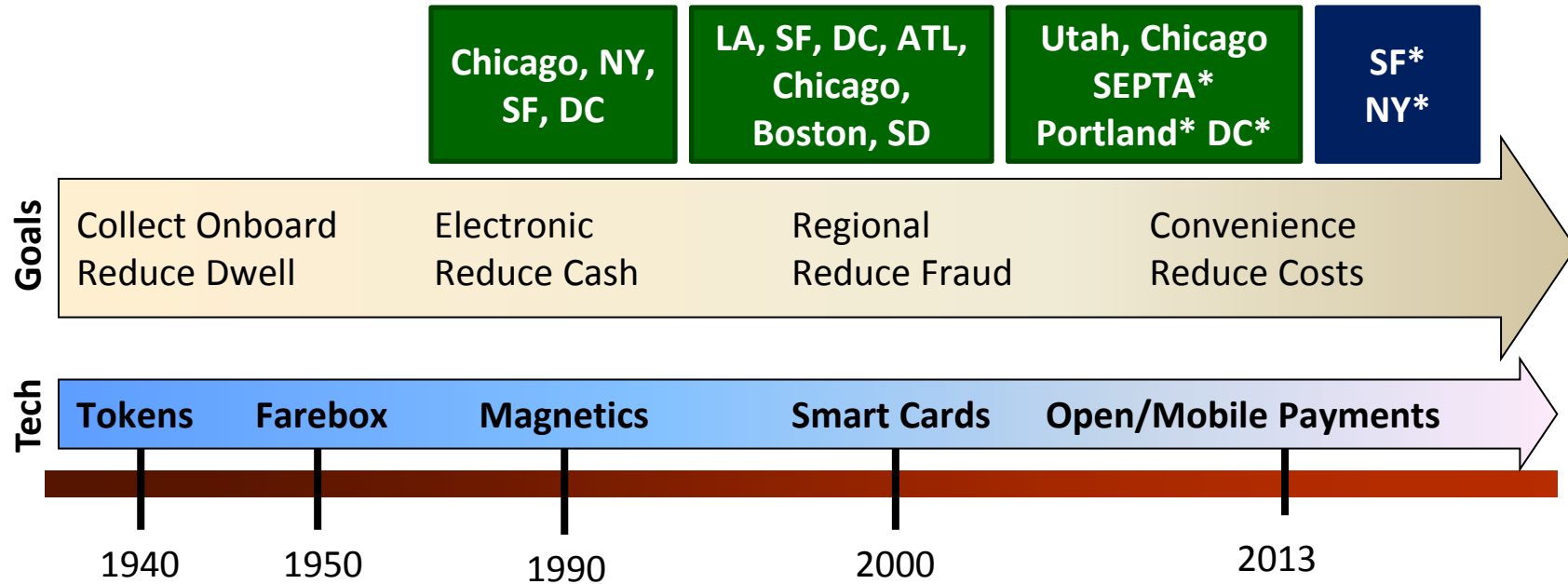
# Clipper® Expansion: Phase 3 Operators



# Clipper® Program History



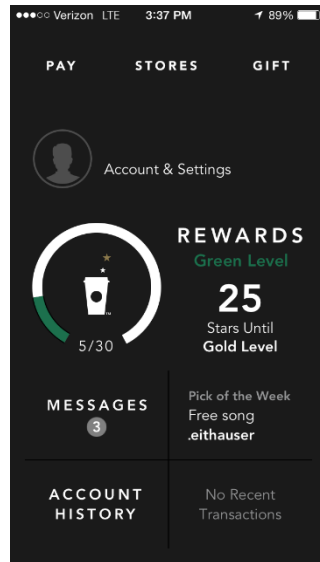
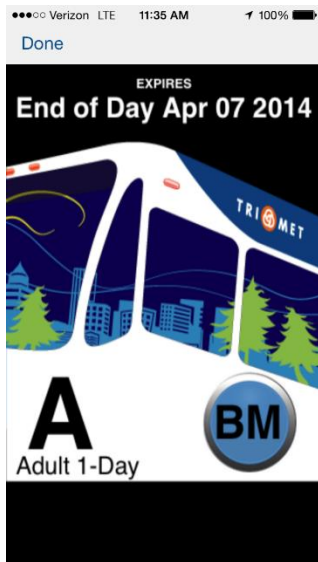
# Fare collection has undergone significant changes over the last 30 years



\* In development

# New Payment Options are Emerging

Payment brands and technology providers are beginning to utilize contactless technology



Retailers and transit agencies are deploying apps to enable instant purchases over the air

# Mobile Payment Use Cases

## Account Management



## Mobile Tickets



## Mobile Wallets



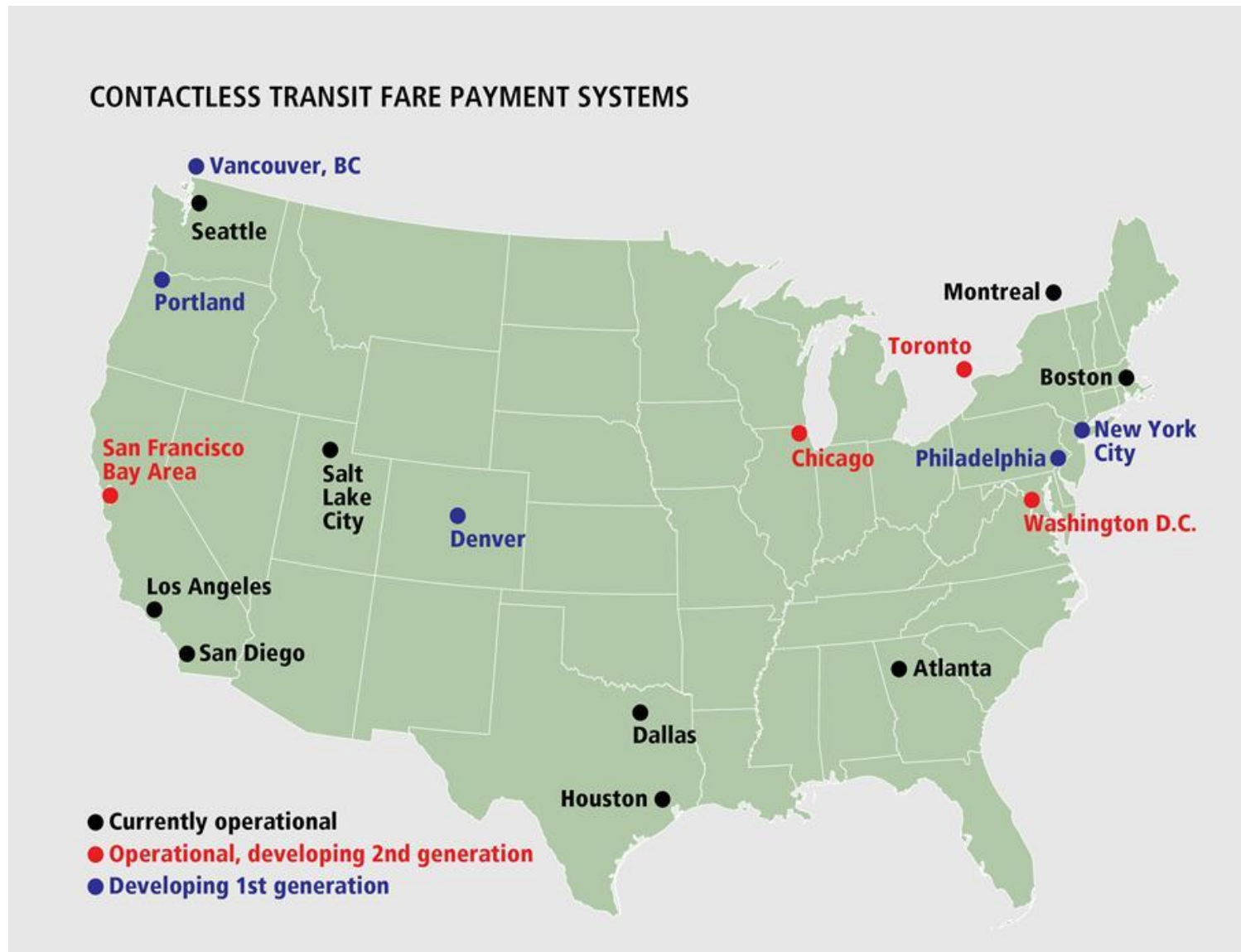
## Bluetooth Low Energy\*



\* In development

	Purchase	Use	Validation	Integration
Purchase	Fares purchased in mobile app/website, available for use in 1-3 days	Tickets purchased through mobile app and stored on phone	"Pay as you go" with virtual contactless credit/debit card stored on NFC-enabled phone	"Pay as you go" with Bluetooth-enabled phone
Use	Tap fare media associated with account on contactless reader	Activate ticket in mobile app before or during ride	Tap phone on contactless reader	Enter payment area phone
Validation	N/A	By operator or automatically by scanner	Automatically by contactless payment devices	Automatically by bluetooth beacons that fence payment area
Integration	Mobile website currently provided by Clipper	<b>Clipper:</b> Possible, but unproven and expensive <b>C2:</b> Can be included in initial design	<b>Clipper:</b> Not supported <b>C2:</b> Possible without additional engineering if open payments supported	Use cases still evolving, integration requirements unknown

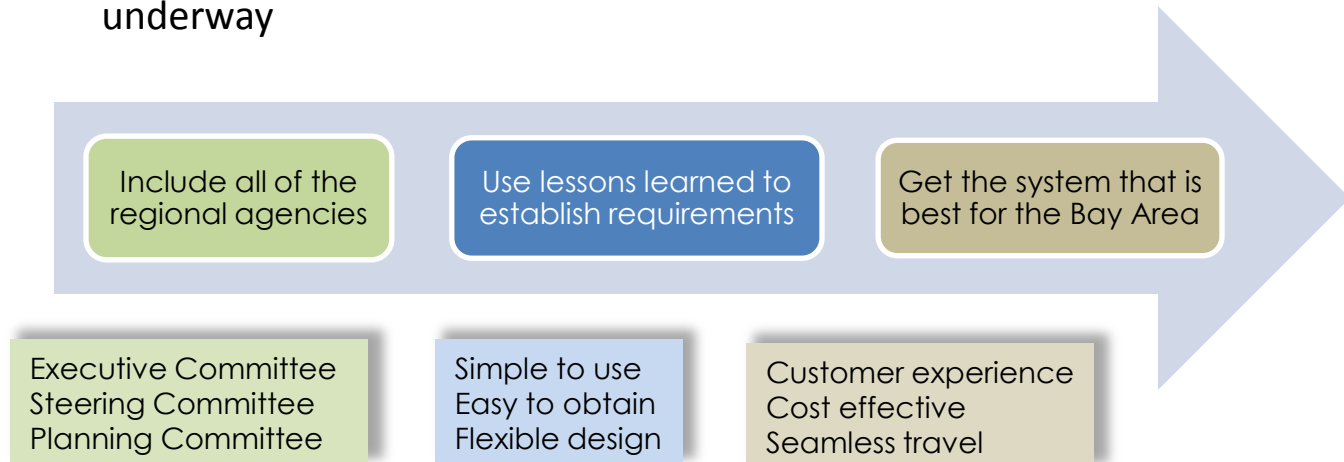
# Smart Card Program Landscape – North America





# Planning for the Next-Generation Clipper® System

- Contract with Cubic ends in November 2019
- System limitations
  - System architecture is from the late 90s
  - Device components approaching end-of-life
  - Complex regional policies limit flexibility
  - Layering in new technologies to integrate with the existing Clipper® system would likely be expensive and risky
- Preparing for new procurement
  - Executive, Steering and Long-Range Committees meeting regularly
  - Work on vision for new system, concept of operations, and fare simplification underway



# C2 Schedule – Taking the Time to Do it Right

