



Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105

Meeting Agenda

Clipper Executive Board

Committee Members:

Denis Mulligan, Chair Edward D. Reiskin, Vice Chair

*Grace Crunican, Nuria Fernandez, Jim Hartnett,
Steve Heminger, Michael Hursh, Rick Ramacier,
Nina Rannells*

Monday, October 24, 2016

3:30 PM

San Francisco Bay Area Rapid Transit District
344 20th Street, 3rd Floor
Oakland CA, 94612
BART Board Room

This meeting will be recorded. Copies of recordings may be requested at the Metropolitan Transportation Commissioner (MTC) at nominal charge, or recordings may be listened to at MTC offices by appointment.

To access meeting location, please access through the Webster Street entrance between CVS Pharmacy and 24-Hour Fitness. Take the elevator to the 3rd floor and exit the elevator to your right where the agenda will be posted. Please enter the room through the double doors. For meeting location questions, please contact Angelica Dill-James at 510-464-6093.

1. Roll Call / Confirm Quorum

Quorum: A quorum of this committee shall be a majority of its regular voting members (5).

2. Consent Calendar

2a. [15-1947](#) Minutes of September 26, 2016 meeting

Action: Board Approval

Attachments: [2a CEB Minutes Sept 2016](#)

- 2b.** [15-1949](#) Clipper® Program Contract Actions
- i. Contract Change Order - Implementation of Sonoma-Marín Area Rail Transit District (SMART) 31-Day Pass: Cubic Transportation Systems, Inc. (\$175,000)
 - ii. Contract Amendment - Modification of SMART Ticket Vending Machines to support Vending of SMART 31-Day Pass: VenTek Transit, Inc. (\$125,000)
- Action:** Board Approval
- Presenter:** Derek Toups
- Attachments:** [2b Clipper® Program Contract Actions](#)

3. Approval

- 3a.** [15-2025](#) Clipper® Contract Change Order - Bus Device Installation Kits: Cubic Transportation Systems, Inc. (\$1,700,000)
- Procurement of Clipper® on-board equipment to support transit operator fleet expansion and replacement.
- Action:** Board Approval
- Presenter:** Lynn Valdivia
- Attachments:** [3a Clipper® Contract Change Order – Bus Device Installation Kits](#)

4. Information

- 4a.** [15-1967](#) Clipper® In-Person Customer Service Centers (IPCSCs)
- Update on Clipper® In-Person Customer Service Strategy
- Action:** Information
- Presenter:** Lynn Valdivia
- Attachments:** [4a Clipper IPCSC](#)
[4a Handout-Clipper IPCSC TOT Sales Map](#)
- 4b.** [15-1968](#) Comparison of Clipper® and FasTrak® Programs
- Comparison of the Regional Clipper® and FasTrak® Programs.
- Action:** Information
- Presenter:** Carol Kuester
- Attachments:** [4b Revised-Comparison of Clipper® and FasTrak® Programs](#)

- 4c. [15-2026](#) Next-Generation Clipper® (C2) System Integrator Request for Proposal (RFP) Development

Update on the progress of the C2 System Integrator RFP.

Action: Information

Presenter: Jason Weinstein

Attachments: [4c C2 RFP Development](#)

- 4d. [15-2027](#) Next-Generation Clipper® (C2) System Integrator Assumption of Clipper® Operations

Discussion of the benefits and risks of the C2 contractor assuming Clipper® operations.

Action: Information

Presenter: Jason Weinstein

Attachments: [4d Revised-C2 System Integrator Assumption of Clipper® Operations](#)

5. Executive Director's Report - Kuester

- 5a. [15-1950](#)

Action: Information

Attachments: [5a Handout-APTA Railvolution Comparison](#)

6. Public Comment / Other Business

7. Adjournment / Next Meeting

The next meeting of the Clipper® Executive Board will be November 28, 2016, 4:00 p.m. in the BART Board Room, 3rd Floor, 344 20th Street, Oakland, CA.

Public Comment: The public is encouraged to comment on agenda items at Committee meetings by completing a request-to-speak card (available from staff) and passing it to the Committee secretary. Public comment may be limited by any of the procedures set forth in Section 3.09 of MTC's Procedures Manual (Resolution No. 1058, Revised) if, in the chair's judgment, it is necessary to maintain the orderly flow of business.

Meeting Conduct: If this meeting is willfully interrupted or disrupted by one or more persons rendering orderly conduct of the meeting unfeasible, the Chair may order the removal of individuals who are willfully disrupting the meeting. Such individuals may be arrested. If order cannot be restored by such removal, the members of the Committee may direct that the meeting room be cleared (except for representatives of the press or other news media not participating in the disturbance), and the session may continue.

Record of Meeting: Committee meetings are recorded. Copies of recordings are available at a nominal charge, or recordings may be listened to at MTC offices by appointment. Audiocasts are maintained on MTC's Web site (mtc.ca.gov) for public review for at least one year.

Accessibility and Title VI: MTC provides services/accommodations upon request to persons with disabilities and individuals who are limited-English proficient who wish to address Commission matters. For accommodations or translations assistance, please call 415.778.6757 or 415.778.6769 for TDD/TTY. We require three working days' notice to accommodate your request.

可及性和法令第六章: MTC 根據要求向希望來委員會討論有關事宜的殘疾人士及英語有限者提供服務/方便。需要便利設施或翻譯協助者, 請致電 415.778.6757 或 415.778.6769 TDD / TTY。我們要求您在三個工作日前告知, 以滿足您的要求。

Acceso y el Titulo VI: La MTC puede proveer asistencia/facilitar la comunicación a las personas discapacitadas y los individuos con conocimiento limitado del inglés quienes quieran dirigirse a la Comisión. Para solicitar asistencia, por favor llame al número 415.778.6757 o al 415.778.6769 para TDD/TTY. Requerimos que solicite asistencia con tres días hábiles de anticipación para poderle proveer asistencia.

Attachments are sent to Committee members, key staff and others as appropriate. Copies will be available at the meeting.

All items on the agenda are subject to action and/or change by the Committee. Actions recommended by staff are subject to change by the Committee.



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 15-1947 **Version:** 1 **Name:**
Type: Minutes **Status:** Consent
File created: 9/16/2016 **In control:** Clipper Executive Board
On agenda: 10/24/2016 **Final action:**
Title: Minutes of September 26, 2016 meeting
Sponsors:
Indexes:
Code sections:
Attachments: [2a_CEB Minutes_Sept 2016](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:
Minutes of September 26, 2016 meeting

Recommended Action:
Board Approval

Attachments



Agenda Item 2a

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105

Meeting Minutes - Draft

Clipper Executive Board

Committee Members:

Denis Mulligan, Chair Edward D. Reiskin, Vice Chair

*Grace Crunican, Nuria Fernandez, Jim Hartnett,
Steve Heminger, Michael Hursh, Rick Ramacier,
Nina Rannells*

Monday, September 26, 2016

4:00 PM

Meeting Location:
San Francisco Bay Area Rapid Transit District
344 20th Street, 3rd Floor
Oakland CA, 94612
BART Board Room

1. Roll Call / Confirm Quorum

Present: 7 - Rannells, Ramacier, Chair Mulligan, Vice Chair Reiskin, Fernandez, Crunican, and Heminger

Absent: 2 - Hursh, and Hartnett

Diana Hammons acted as a delegate and voting member of the Board in place of Edward D. Reiskin.

Actions noted below as "Reiskin" were taken by Hammons.

Seamus Murphy acted as a non-voting alternate to the Board in place of Jim Hartnett.

Board Member Heminger arrived after the approval of the Consent Calendar.

2. Consent Calendar

Upon the motion by Crunican and second by Fernandez, the Consent Calendar was unanimously approved by the following vote:

Aye: 6 - Rannells, Ramacier, Chair Mulligan, Vice Chair Reiskin, Fernandez and Crunican

Absent: 3 - Hursh, Heminger and Hartnett

2a. [15-1861](#) Minutes of August 22, 2016 meeting

Action: Board Approval

Attachments: [2a_CEB Minutes_Aug 2016](#)

2b. [15-1916](#) Purchase Order - Network Services: AT&T (\$432,500)

Action: Board Approval

Presenter: Lynn Valdivia

Attachments: [2b Clipper Network Purchase Order](#)

3. Information**3a.** [15-1876](#) Regional Fare Coordination

Update on regional efforts at fare coordination.

Action: Information

Presenter: Anne Richman and Jason Weinstein

Attachments: [3a Regional Fare Coordination](#)

Ratna Amin of SPUR spoke on this item.

Steve Raney of Joint Venture Silicon Valley spoke on this item.

3b. [15-1877](#) Next-Generation Clipper® (C2) Technical Package

Update on development of C2 requirements.

Action: Information

Presenter: Jason Weinstein

Attachments: [3b C2 Technical Package](#)
[3b Handout BayAreaVentra](#)

Steve Raney of Joint Venture Silicon Valley spoke on this item.

3c. [15-1890](#) Next-Generation Clipper® (C2) Procurement Update

Status of C2 procurement process.

Action: Information

Presenter: Denise Rodrigues

Attachments: [3c C2 Procurement Update](#)

3d. [15-1891](#) Current Clipper® Program Update

Current Clipper® System Operations Update.

Action: Information

Presenter: Lynn Valdivia

Attachments: [3d_Current Clipper Program Update](#)

4. Executive Director's Report - Kuester

5. Public Comment / Other Business

6. Adjournment / Next Meeting

The next meeting of the Clipper Executive Board will be October 24, 2016, 4:00 p.m. in the Caltrain / SamTrans Auditorium, 2nd Floor, 1250 San Carlos Ave, San Carlos, CA 94070.



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 15-1949 **Version:** 1 **Name:**

Type: Contract **Status:** Consent

File created: 9/16/2016 **In control:** Clipper Executive Board

On agenda: 10/24/2016 **Final action:**

Title: Clipper® Program Contract Actions
i. Contract Change Order - Implementation of Sonoma-Marín Area Rail Transit District (SMART) 31-Day Pass: Cubic Transportation Systems, Inc. (\$175,000)
ii. Contract Amendment - Modification of SMART Ticket Vending Machines to support Vending of SMART 31-Day Pass: VenTek Transit, Inc. (\$125,000)

Sponsors:

Indexes:

Code sections:

Attachments: [2b Clipper® Program Contract Actions](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:

Clipper® Program Contract Actions

- i. Contract Change Order - Implementation of Sonoma-Marín Area Rail Transit District (SMART) 31-Day Pass: Cubic Transportation Systems, Inc. (\$175,000)
- ii. Contract Amendment - Modification of SMART Ticket Vending Machines to support Vending of SMART 31-Day Pass: VenTek Transit, Inc. (\$125,000)

Presenter:

Derek Toups

Recommended Action:

Board Approval

Attachments



Agenda Item 2b

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

TO: Clipper® Executive Board

DATE: October 17, 2016

FR: Carol Kuester

RE: Clipper® Program Contract Actions

- i. Contract Change Order – Implementation of Sonoma-Marín Area Rail Transit District (SMART) 31-Day Pass: Cubic Transportation Systems, Inc. (\$175,000)
- ii. Contract Amendment – Modification of SMART Ticket Vending Machines to support Vending of SMART 31-Day Pass: VenTek Transit, Inc. (\$125,000)

Background

The initial implementation of Clipper® for the Sonoma-Marín Area Rail Transit District (SMART) includes a zone-based fare system, using Clipper® cash value, with daily fare capping and an annual institutional pass (“SMART ECO PASS”). The fare capping will allow SMART passengers to take multiple trips in a day and pay a maximum daily. The SMART ECO PASS will be marketed by SMART to employers, colleges, veterans’ groups, and other institutions who will be able to purchase the annual Eco-Passes for their employees, students, and members directly from SMART to receive fare discounts.

This request is for MTC to authorize two contractors (Cubic Transportation Systems, Inc., and VenTek Transit, Inc.) to modify the Clipper® fare collection system and SMART’s ticket vending machines (TVMs) to incorporate a 31-day rolling pass. This pass would allow passengers to take unlimited rides on the SMART system (valid for travel between any zones or station pairs) during a consecutive 31-day duration for a fixed price to be specified by SMART. The changes requested include modifications to the Clipper® back-end system by Cubic to develop and support the pass; and modification of the SMART ticket vending machines by VenTek to sell the pass.

The SMART Board of Directors approved funding for this work at their September 21, 2016 Board meeting. Since SMART is funding this work, MTC requires a funding agreement with SMART in order to initiate this work. If approved, work could commence this winter and would be expected to be complete by late summer/fall 2017. See Attachment A for Cubic project schedule and Attachment B for VenTek schedule.

Transit agency staff liaisons have reviewed the queue of upcoming work in the Clipper® pipeline and have agreed that this work does not adversely affect the delivery of other projects.

Contract Actions

i. Contract Change Order – Implementation of SMART 31-Day Pass: Cubic Transportation Systems, Inc. (\$175,000)

Staff recommends the Clipper® Executive Board's approval of one or more contract change order(s) with Cubic Transportation Systems, Inc., in an amount not to exceed \$175,000 for the services described above.

ii. Contract Amendment – Ticket Vending Machines for Sonoma-Marín Area Rail Transit District: VenTek Transit, Inc. (\$125,000)

Staff recommends the Clipper® Executive Board's approval of one or more contract change order(s) with VenTek Transit, Inc., in an amount not to exceed \$125,000 for the services described above.



Carol Kuester

Attachments:

- Attachment A: Cubic Project Schedule
- Attachment B: VenTek Project Schedule

SMART 31 DAY PASS

PRELIMINARY SCHEDULE















13-Oct-16 13:53

| Activity ID | Activity Name | Original Duration | Start | Finish | Predecessors | Successors | Duration % Complete | Total Float | Qtr 1, 2017 | | | Qtr 2, 2017 | | | Qtr 3, 2017 | | | Qtr 4, 2017 | | | Qtr 1, 2018 | | | Qtr 2, 2018 | | |
|-------------------|--------------------|-------------------|-----------|-----------|--------------|---------------------|---------------------|-------------|--------------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| | | | | | | | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
| Total | | 355d | 02-Jan-17 | 29-May-18 | | | 0% | 0d | | | | | | | | | | | | | | | | | | |
| SMART 31 DAY PASS | | 355d | 02-Jan-17 | 29-May-18 | | | 0% | 0d | | | | | | | | | | | | | | | | | | |
| A1000 | Expected NTP | 0d | 02-Jan-17 | | | A1010, A1020, A1020 | 0% | 0d | Expected NTP | | | | | | | | | | | | | | | | | |
| A1010 | Program Management | 110d | 02-Jan-17 | 05-Jun-17 | A1000 | | 0% | 245d | Program Management | | | | | | | | | | | | | | | | | |
| A1020 | NRE | 50d | 02-Jan-17 | 10-Mar-17 | A1000, A1000 | A1030, A1040 | 0% | 0d | NRE | | | | | | | | | | | | | | | | | |
| A1030 | Testing | 55d | 13-Mar-17 | 26-May-17 | A1020 | A1050 | 0% | 0d | Testing | | | | | | | | | | | | | | | | | |
| A1040 | Documentation | 40d | 13-Mar-17 | 05-May-17 | A1020 | A1050 | 0% | 15d | Documentation | | | | | | | | | | | | | | | | | |
| A1050 | Warranty | 250d | 30-May-17 | 29-May-18 | A1030, A1040 | | 0% | 0d | | | | | | | | | | | | | | | | | | |

Page 1 of 1

CUBIC

VenTek Project Schedule

| |  | Task Mode ▾ | Task Name ▾ | Duration ▾ | Start ▾ | Finish ▾ | Pred |
|----|---|---|------------------------------------|------------|---------|----------|------|
| 0 | |  | 31-Day Pass Implementation | 82 days | 3/1/17 | 6/22/17 | |
| 1 |  |  | NTP | 1 day | 3/1/17 | 3/1/17 | |
| 2 | |  | ▸ Scope | 1.5 days | 3/2/17 | 3/3/17 | |
| 5 | |  | ▸ Analysis/Software Requirements | 6 days | 3/2/17 | 3/9/17 | |
| 9 | |  | ▸ Design | 3 days | 3/10/17 | 3/14/17 | |
| 14 | |  | Design Review | 1 day | 3/15/17 | 3/15/17 | 9 |
| 15 | |  | ▸ Development | 45 days | 3/1/17 | 5/2/17 | |
| 21 | |  | ▸ Testing | 12 days | 5/3/17 | 5/18/17 | |
| 30 | |  | ▸ Documentation | 25 days | 5/19/17 | 6/22/17 | |
| 37 | |  | ▸ Deployment | 10 days | 5/19/17 | 6/1/17 | |
| 44 | |  | 31-day Pass Acceptance (MTC/SMART) | 8 days | 6/2/17 | 6/13/17 | 43 |
| 45 | |  | 31-day Pass Completed | 0 days | 6/13/17 | 6/13/17 | 44 |

REQUEST FOR BOARD APPROVAL

Summary of Contract Change Order

| | |
|-----------------------------|--|
| Contractor: | Cubic Transportation Systems, Inc. San Diego, CA |
| Work Project Title: | SMART 31-Day Pass Implementation |
| Purpose of Amendment: | Implementation of SMART 31-Day Pass on Clipper® |
| Brief Scope of Work: | Under this Change Order, Cubic will implement a 31-Day Pass product on the Clipper® fare payment system to cover the Sonoma-Marin Area Rail Transit District (SMART) service. |
| Project Cost Not to Exceed: | <p>\$175,000 (this Change Order)</p> <p>Total contract value including amendments before this amendment = \$167,619,610</p> <p>Total contract amount with this amendment = \$167,794,610 (this total does not include other October 24, 2016 contract approval actions).</p> |
| Funding Source: | SMART funds |
| Fiscal Impact: | Funding will be provided by SMART. |
| Motion: | That the Contract Change Order with Cubic Transportation Systems, Inc., for the purposes described herein and in the Executive Director's memorandum dated October 17, 2016, is hereby approved by the Clipper® Executive Board. |
| Clipper® Executive Board: | <hr/> |
| | Denis Mulligan, Chair |
| Approved: | Date: October 24, 2016 |

REQUEST FOR BOARD APPROVAL

Summary of Contract Amendment

| | |
|--------------------------------|--|
| Contractor: | VenTek Transit, Inc. (VenTek) Petaluma, CA |
| Work Project Title: | Ticket Vending Machines for Sonoma-Marín Area Rail Transit District (SMART) |
| Purpose of Amendment: | Modification of ticket vending machine screen flow/user interface and associated software configuration to support vending of Clipper® SMART 31-day pass. |
| Brief Scope of Work: | VenTek shall modify the SMART TVM software and screen flows to support purchasing and loading a 31-day pass to a Clipper® card. |
| Project Cost Not to Exceed: | \$125,000 (this Change Order) Total contract value including amendments before this amendment = \$1,327,565 Total contract amount with this amendment = \$1,452,565 |
| Funding Source: | SMART funds |
| Fiscal Impact: | Funding will be provided by SMART. |
| Motion by Committee: | That the Contract Amendment with VenTek Transit, Inc., for the purposes described herein and in the Executive Director's memorandum dated October 17, 2016, is hereby approved by the Clipper® Executive Board. |
| Clipper® Executive Board: | <hr/> Denis Mulligan, Chair |
| Approved: | Date: October 24, 2016 |



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 15-2025 **Version:** 1 **Name:**
Type: Contract **Status:** Committee Approval
File created: 10/11/2016 **In control:** Clipper Executive Board
On agenda: 10/24/2016 **Final action:**
Title: Clipper® Contract Change Order - Bus Device Installation Kits: Cubic Transportation Systems, Inc. (\$1,700,000)

Procurement of Clipper® on-board equipment to support transit operator fleet expansion and replacement.

Sponsors:

Indexes:

Code sections:

Attachments: [3a Clipper® Contract Change Order – Bus Device Installation Kits](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:

Clipper® Contract Change Order - Bus Device Installation Kits: Cubic Transportation Systems, Inc. (\$1,700,000)

Procurement of Clipper® on-board equipment to support transit operator fleet expansion and replacement.

Presenter:

Lynn Valdivia

Recommended Action:

Board Approval

Attachments



Agenda Item 3a
Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

TO: Clipper® Executive Board

DATE: October 17, 2016

FR: Carol Kuester

RE: Clipper® Contract Change Order – Bus Device Installation Kits: Cubic Transportation Systems, Inc. (\$1,700,000)

Background

Clipper® equipment is deployed on 3,000 vehicles operated by 17 bus operators. These operators routinely replace and add vehicles to their fleets. Obtaining the devices and related equipment and materials for installing Clipper® equipment on the new vehicles requires a six to nine month lead time. In order to support a more rapid response to the fleet changes, MTC is requesting authorization to obtain quantities of several types of installation kits to support these fleet changes. Installation kits will be placed in program inventory to be installed as part of future operator requests. MTC and transit operator staff support this approach and strategy to allow for quick response to operator requests.

Change Order Scope of Work

Two versions of Clipper® devices are installed on current vehicle fleets:

| Legacy Equipment (DC, CID 1) | Newer Equipment (DC3, CID 5) |
|--|---|
| Ten operators - AC Transit, Golden Gate Transit, SFMTA, SamTrans, VTA*, Marin Transit, FAST, Napa, Soltrans, Vacaville | Seven operators - CCCTA, TriDelta Transit, WestCat, Wheels, Petaluma Transit, Santa Rosa Transit, Sonoma County Transit |

*VTA's fleet of legacy devices is currently being replaced with newer equipment; legacy equipment from VTA will be refurbished as needed and made available to support needs of remaining operators.

Three types of installation kits are required to support regional fleet management activities:

1. Legacy Equipment: Installation Kits for Pre-Wired Vehicles

These kits are intended to accommodate requests to install legacy devices on an expansion or replacement vehicle that has been pre-wired by the vehicle manufacturer. These types of kits will include all necessary equipment to enable new vehicles to receive legacy devices removed from outgoing vehicles or provided from the regional spares pool.

2. Newer Equipment: Installation Kits for Expansion Vehicles

These kits are intended to accommodate expansion of operator fleets using the newer equipment. To outfit the additional vehicles, the kit will include the driver console (DC3), card readers (CID5), uninterruptible power supply (UPS), battery, wiring harness, brackets, and all other elements necessary to fully complete a vehicle installation.

3. Newer Equipment: Installation Kits for Replacement Vehicles

These kits are intended to accommodate transition of devices from a retiring vehicle using the newer equipment to a replacement vehicle. This type of kit will include all necessary equipment to enable the new vehicle to receive the newer devices removed from an outgoing vehicle.

This Change Order will procure 100 newer equipment kits for expansion vehicles, 200 newer equipment kits for replacement vehicles, and 100 legacy equipment kits. These quantities were determined based on known and anticipated needs over the next two to three years. All kits will be placed in regional inventory until allocated by MTC to a future installation effort.

Recommendation

Transit agency staff liaisons and Clipper® program staff recommend the Executive Board approval of a Change Order to the contract between MTC and Cubic in an amount not to exceed \$1,700,000 to obtain additional Clipper® devices for installation on transit operator vehicles and replenish the inventory of spare devices.



Carol Kuester

Attachment:

- Attachment A: Project Schedule

| CN 146 - Bus Device Installation Kits | | | DATA DATE 6-Oct-16 | | | | | | |
|---|---|--------------------|--------------------|-----------|-----------------------|-----------|-----------|-----------|-----------|
| Activity ID | Activity Name | Remaining Duration | Start | Finish | Remaining Labor Units | 1/16/2017 | 3/17/2017 | 5/16/2017 | 7/15/2017 |
| TOTAL | | | 1/17/2017 | 7/27/2017 | 4542 | | | | |
| CN 146- Bus Device Installation Kits | | | 1/17/2017 | 7/27/2017 | 4542 | | | | |
| WBS 1000- Program Management | | 0 | 1/16/2017 | 1/16/2017 | 0 | | | | |
| Customer Review & Dependancies | | | | | | | | | |
| PM-1010 | NTP | 0 | 1/16/2017 | 1/16/2017 | 0 | | | | |
| WBS 8000 | | 1 | 1/17/2017 | 7/27/2017 | 2 | | | | |
| Installation | | | | | | | | | |
| NRE-8050 | Equipment ERA creation/submittal for purchasing | 1 | 1/17/2017 | 1/17/2017 | 2 | | | | |
| NRE-8100 | MATERIALS | 189 | 1/18/2017 | 7/26/2017 | 4536 | | | | |
| NRE-8120 | Delivery to Clipper Depot | 1 | 7/27/2017 | 7/27/2017 | 4 | | | | |

Actual Work

Remaining Work

Critical Remaining Work

Milestone

Summary

17-Jan

17-Jan

WBS 1000- Program Management

NTP

WBS 8000

Equipment ERA creation/submittal for...

MATERIALS

Delivery to Clipper Depot

Page 1 of 1

REQUEST FOR BOARD APPROVAL

Summary of Proposed Contract Change Order

| | |
|-----------------------------|--|
| Contractor: | Cubic Transportation Systems, Inc. San Diego, CA |
| Project Title: | Bus Device End-of-Lifecycle Replacement and Spares Replenishment |
| Purpose of Amendment: | Obtain Clipper® devices for installation on transit operator vehicles and replenish the inventory of spare devices. |
| Brief Scope of Work: | Procure and install Clipper® on-board equipment and bus yard network equipment at transit operators. |
| Project Cost Not to Exceed: | \$1,700,000 (this Amendment) Total contract value including amendments before this Change Order amendment = \$167,619,610 Total contract amount with this Change Order = \$169,319,610 (this total does not include other October 24, 2016 contract approval actions). |
| Funding Source: | STP, CMAQ, STA, STP Exchange, Regional Measure 2 Capital |
| Fiscal Impact: | Funds available in the FY 2016-17 MTC agency budget. |
| Motion: | That the Change Order with Cubic Transportation Systems, Inc. for the purposes described herein and in the Executive Director's October 17, 2016 memorandum, is hereby approved by the Clipper® Executive Board. |
| Executive Board: | <hr/> Denis Mulligan, Chair |
| Approved: | Date: October 24, 2016 |



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 15-1967 **Version:** 1 **Name:**
Type: Report **Status:** Informational
File created: 9/23/2016 **In control:** Clipper Executive Board
On agenda: 10/24/2016 **Final action:**
Title: Clipper® In-Person Customer Service Centers (IPCSCs)
Update on Clipper® In-Person Customer Service Strategy

Sponsors:

Indexes:

Code sections:

Attachments: [4a Clipper IPCSC](#)
[4a Handout-Clipper IPCSC TOT Sales Map](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:

Clipper® In-Person Customer Service Centers (IPCSCs)

Update on Clipper® In-Person Customer Service Strategy

Presenter:

Lynn Valdivia

Recommended Action:

Information

Attachments



TO: Clipper® Executive Board

DATE: October 17, 2016

FR: Carol Kuester

RE: Clipper® In-Person Customer Service Centers (IPCSCs)

This memorandum is to inform the Clipper® Executive Board about the current performance and future plans for in-person service to Clipper® customers. Staff recommends continuing to provide in-person customer service at three locations (detailed below).

Current Performance

Attachment A shows transaction volume and operational cost for the three IPCSCs at the following locations:

- Embarcadero BART/Muni Metro Station in San Francisco
- AC Transit Headquarters in Oakland
- Ferry Building in San Francisco

The IPCSCs, as opposed to Clipper® retailers like Walgreens, are the only locations for customers to perform some transaction types, including instant replacement of Adult, Youth and Senior cards, as well as the ability to accept split payments on transit benefit debit cards and vouchers for Clipper® purchases. While not inexpensive to operate (annual cost for all locations is ~\$1M), the IPCSCs continue to provide a convenient option for Clipper® customers who prefer face-to-face interaction for their customer service or transit product purchase needs. For example, while the IPCSC in the Embarcadero BART/Muni Metro Station cost \$525,000 to operate in 2016, the top three Clipper® retail locations alone in the same time cost transit agencies nearly \$300,000 in sales commission fees. The Embarcadero Station IPCSC sells more Clipper® value than any other retail location in the entire region and the Ferry Building IPCSC is strategically located to serve both the local and tourist market.

Future Plans

The contract for staffing the Embarcadero IPCSC will expire on June 30, 2017, and staff is preparing to issue a Request for Proposals (RFP) so that we will have a new contract in place prior to the expiration of the current contract. Funding for the Embarcadero IPCSC is in the approved Clipper® two-year budget. MTC and BART are also working to move the currently cramped Embarcadero kiosk location to the vacant My Transit Plus space in Embarcadero BART Station in 2017. Staff will bring a request for approval to enter into the new Embarcadero IPCSC contract to this Board in late 2016.

Additionally, we will return to the Clipper® Executive Board in spring 2017 to request approval for the staffing of the Ferry Building and AC Transit locations. Funding for these two IPCSCs is included in the approved Clipper® two-year budget.

Other actions that will expand Clipper® in-person customer service include:

- Cubic is currently modifying VTA's Ticket Office Terminals at two VTA customer service centers in San Jose to offer instant card replacement; and
- Cubic will install a Clipper® Retail Unit in the new Bay Area Metro Center regional resource center "The Hub @ 375 Beale" that will have the ability to sell adult Clipper® cards and all types of value.

Recommendation

We recommend that the Executive Board support continuation of the three IPCSC locations. Staff will bring requests for approval to enter into any new contracts to the Clipper® Executive Board, as well as update the Board on any developments that could better serve the needs of Clipper® customers in the region.



Carol Kuester

Attachment:

- Attachment A: Clipper® Customer Service Activity and Cost

Clipper® Customer Service Activity and Cost

Exhibit 1: Clipper® Customer Service Activity during Fiscal Year 2015-16

| | Adult, Youth and Senior Card Replacement* | Youth and Senior Card Issuance | Value of Ticket Office Terminal (TOT) Sales | Annual Cost |
|---|---|--------------------------------|---|-------------|
| Embarcadero Kiosk | 10,367 | 8,065 | \$5,937,959 | \$525,000 |
| Bay Crossings | 1,829 | 2,191 | \$1,985,005 | \$200,000 |
| AC Transit | 2,997 | 6,854 | \$943,681 | \$250,000 |
| Other Transit Operators | n/a | 35,549 | \$5,589,302 | |
| Clipper Service Bureau | 53,889 | 17,535 | n/a | |
| Total for Region | 69,082 | 70,194 | \$14,455,947 | |
| Percent of Regional Total Attributed to IPCSC Locations | 22% | 24% | 61% | |

*Card replacement data for the Embarcadero Kiosk and Bay Crossings were combined historically. Estimates for Fiscal Year 2015-16 are based on the 85/15 split reflected in location-specific data from May to August 2016.

Exhibit 2: Clipper® Card Replacement by IPCSC Provider

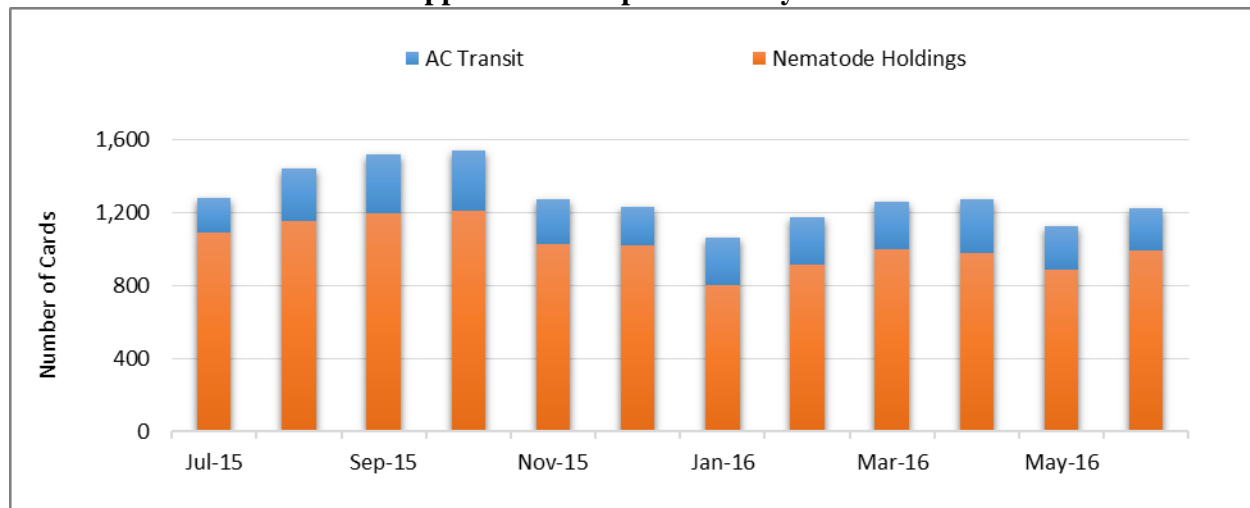
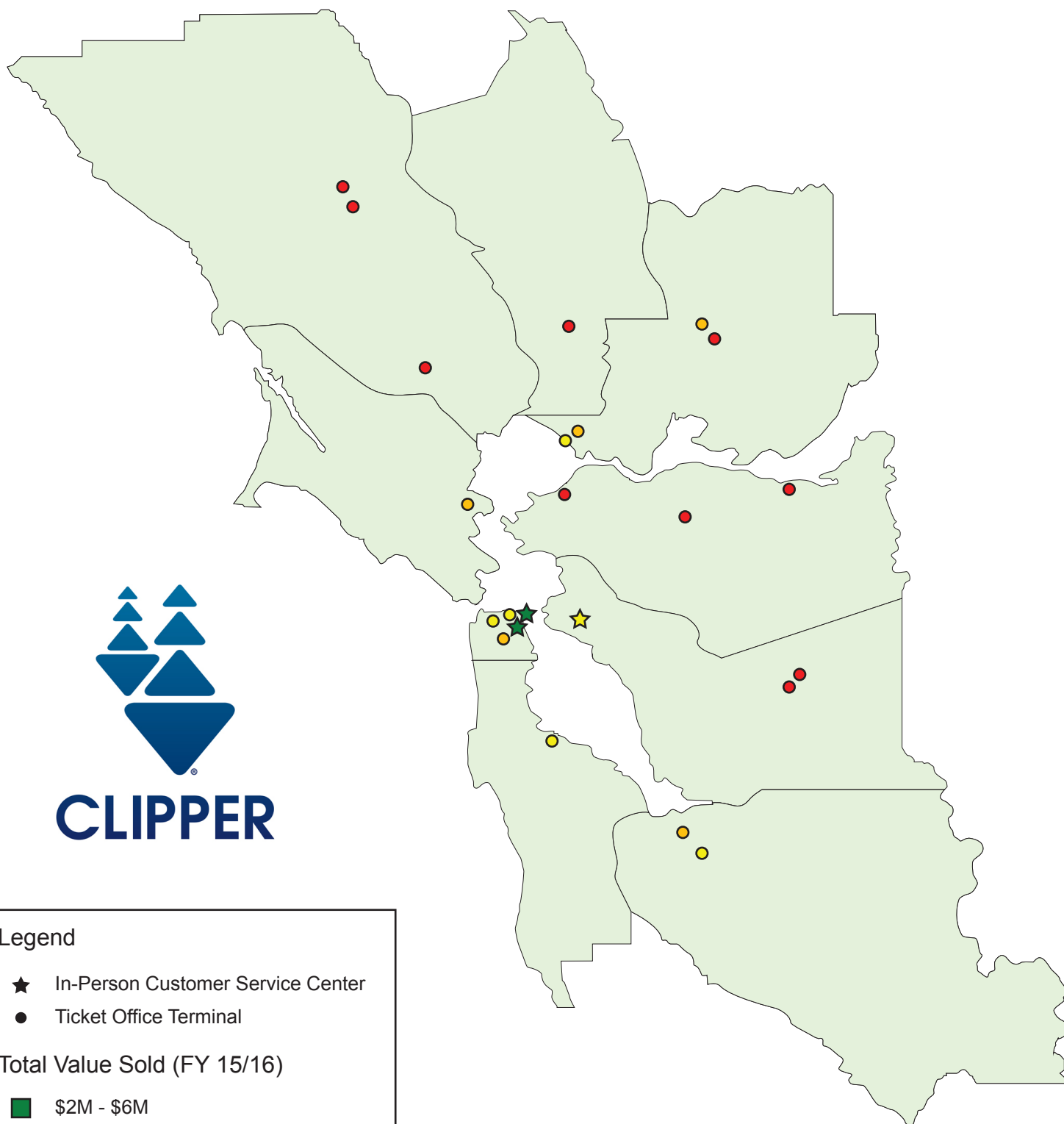


Exhibit 3: Annual Compensation for In-Person Customer Service Operations Paid by MTC

| | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Total |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
| Embarcadero Kiosk (Nematode Holdings) | \$450,000 | \$475,000 | \$475,000 | \$525,000 | \$525,000 | \$600,000 | \$3,050,000 |
| Bay Crossings (Nematode Holdings) | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$200,000 | \$275,000 | \$1,275,000 |
| AC Transit | \$75,000 | \$250,000 | \$250,000 | \$250,000 | \$250,000 | \$250,000 | \$1,325,000 |
| Total by Fiscal Year | \$725,000 | \$925,000 | \$925,000 | \$975,000 | \$975,000 | \$1,125,000 | \$5,650,000 |

Clipper In-Person Customer Service Centers and Operator Ticket Office Terminals



Legend

- ★ In-Person Customer Service Center
- Ticket Office Terminal

Total Value Sold (FY 15/16)

- \$2M - \$6M
- \$500K - \$2M
- \$100K - \$500K
- <\$100K



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 15-1968 **Version:** 1 **Name:**
Type: Report **Status:** Informational
File created: 9/23/2016 **In control:** Clipper Executive Board
On agenda: 10/24/2016 **Final action:**
Title: Comparison of Clipper® and FasTrak® Programs
Comparison of the Regional Clipper® and FasTrak® Programs.

Sponsors:

Indexes:

Code sections:

Attachments: [4b Revised-Comparison of Clipper® and FasTrak® Programs](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:

Comparison of Clipper® and FasTrak® Programs

Comparison of the Regional Clipper® and FasTrak® Programs.

Presenter:

Carol Kuester

Recommended Action:

Information

Attachments



Agenda Item 4b
Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

TO: Clipper® Executive Board

DATE: October 17, 2016

FR: Carol Kuester

RE: Comparison of Clipper® and FasTrak® Programs

MTC manages both the regional Clipper® and FasTrak® programs under the Electronic Payments Section (EPS). The section was created in 2013 to take advantage of various synergies between these two customer-facing programs. The contractor currently providing FasTrak® services is Xerox Corporation. FasTrak® toll tags allow customers to pay for bridge tolls, use of the region's express lane network and parking at San Francisco International Airport by linking tags to an account, and then deducting the amount from the account total each time a tag occurs.

The Clipper® and FasTrak® programs have similar elements: software customized to support this region's business rules; back-end systems to apply business rules and manage accounts; relationships with retailers who sell Clipper® cards, value and toll tags; customer relationship management software to support call center functions; customer-facing websites that support payment transactions; and call takers who answer customer calls and handle escalated problems and complaints. The current Clipper® and FasTrak® contracts are set to expire in November 2019 and September 2019 respectively. These contract end dates were aligned to potentially allow for contract functions to be bundled differently than they are today.

The attachments to this memo provide information comparing the volume of business under the Clipper® contract and under the FasTrak® contract. Attachment A is an overview of comparative usage statistics. The Clipper® system generally averages over 20 million transactions a month, while FasTrak® averages around 9 million. While Clipper®'s transactions tend to vary seasonally, FasTrak®'s transactions are generally relatively stable. However, while transactions are fewer, the FasTrak® system on average collects more revenue than the Clipper® system due to larger average tolls compared to an average transit trip. Autoload is enabled for 31% of Clipper® customers and 88% of FasTrak® customers. While Clipper® is used for fare payment on nearly 50% of the region's transit trips, nearly 2 out of 3 of the region's bridge crossings are paid with FasTrak®.

FasTrak®'s customer service center is currently located at the Bay Area Metro Center at 375 Beale Street, which is also the site of the soon-to-be regional resource center "The Hub @ 375 Beale".

In our procurement strategy we have proposed procuring the Clipper® back-end system integrator services separate from Clipper® call answering functions. We further propose to build into that procurement and contract the option to support call answering functions for FasTrak® as well, which could result in economies of scale. Attachment B illustrates the current schedule for these procurements and how they would be aligned for these two programs.



Carol Kuester

Attachments:

Attachment A: Clipper® / FasTrak® Monthly Statistics Comparison

Attachment B: Clipper® / FasTrak® Procurement Schedule Comparison



Clipper[®] / FasTrak[®] Comparison

Clipper Executive Board

Agenda Item 4b
Attachment A - Revised

Clipper and FasTrak Operating Models



Model: Design-Build-Operate-Maintain (DBOM)

Customer Service –
Contracted out (Cubic)

Technical operations –
Contracted out (Cubic)

Device/Hardware Maintenance –
Contracted out (Cubic)

IT/Network Management –
Contracted out (Cubic)



Model: Hybrid DBOM
(Multiple Contractors)

Customer Service –
Contracted out (Xerox)

Technical operations –
Hybrid: BATA/Contractors (Xerox/TransCore)

Lane Operations/Maintenance –
Contracted out (TransCore)

IT/Network Management –
Directly Managed (BATA)

Clipper and FasTrak Customer Service



~55k calls/month



IVR

~50% calls resolved



CSC (~35 FTE)



CRM System
Pivotal (Cubic)



~300K calls/month



IVR

~60% calls resolved



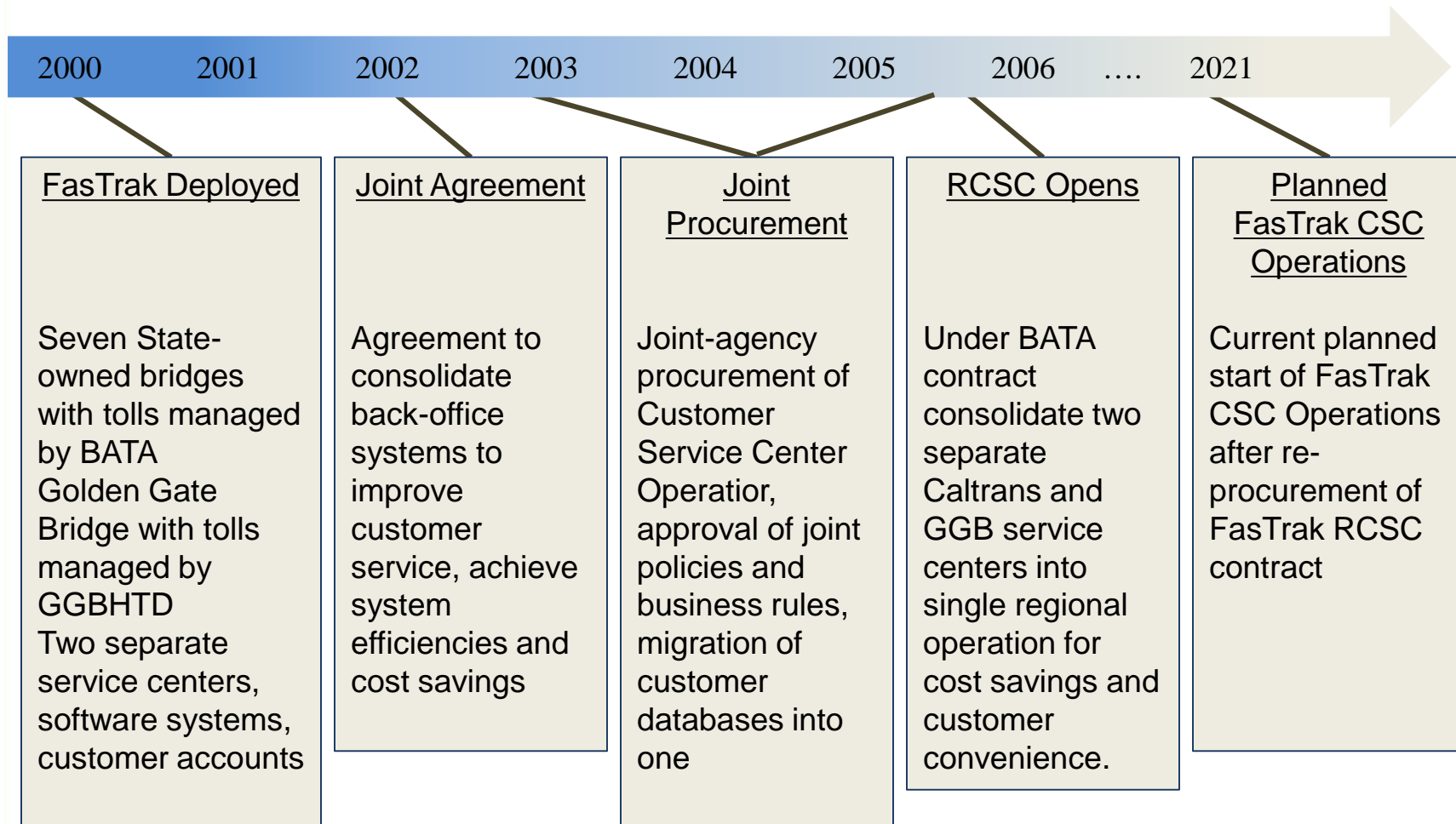
CSC (~100 FTE)



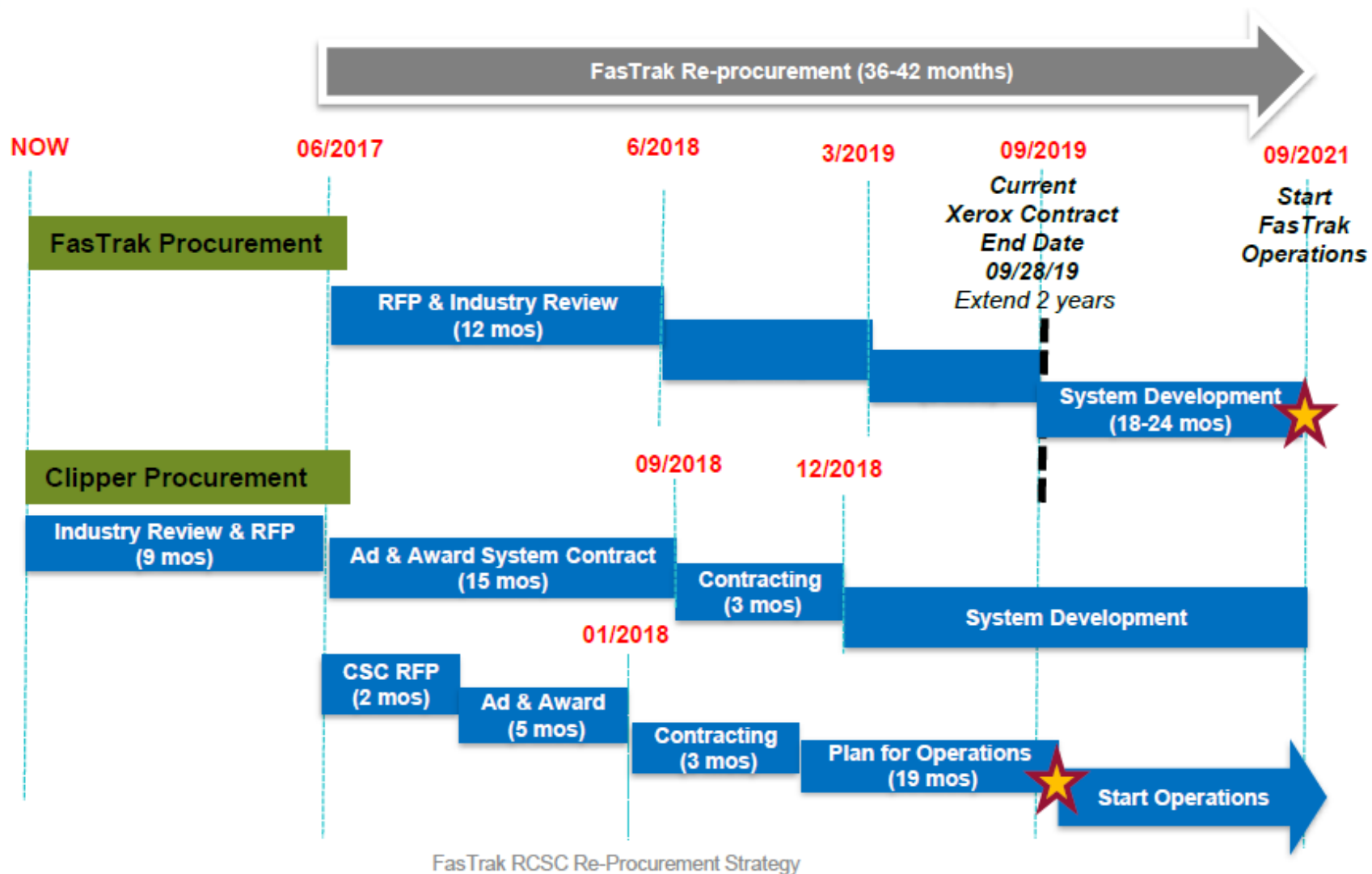
CRM System
Vector



FasTrak CSC History



FasTrak CSC Procurement Timeline

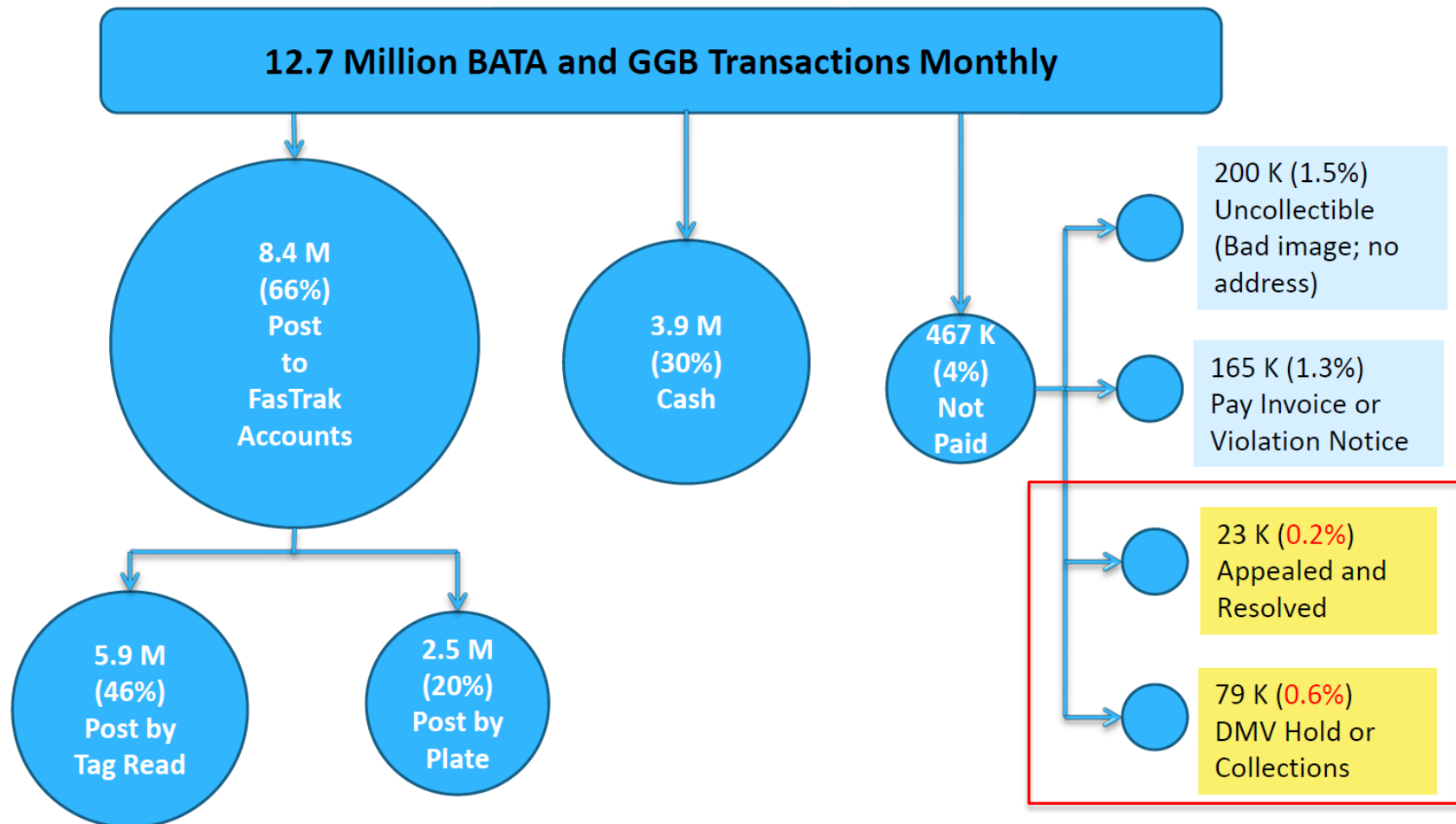


Clipper® / FasTrak® Program Overview

| | Clipper | | FasTrak | |
|-----------------------------|----------------|-----------|----------------|-----------|
| | Aug-16 | 12-Mo Avg | Aug-16 | 12-Mo Avg |
| Unique Cards/Tags | 1M | 0.9M | 1.2M | 1.1M |
| Card/Tag Circulation | 4M | 3.6M | 3.4M | 3.2M |
| Total Transactions | 22.3M | 21.6M | 9.7M | 9M |
| Total Calls | 66K | 52K | 325K | 250K |
| Revenue Collected | \$49M | \$45M | \$53M | \$49M |
| % auto-load | 31% | 32% | 88% | 91% |



FasTrak Transaction Breakdown



- Small share of transactions hurt the brand

Clipper® / FasTrak® Procurement Schedule Comparison

| | 2016 | | | 2017 | | | | | | | | | | | | 2018 | | | | | | | | | | | | 2019 | |
|------------------------------------|-------------|-----|-----|------|-----------------|----------------------------|--------------|---------------|---------------------------|-----------------|-----|----------|-----|---------------------------------------|-----------------|------|----------------------------|-----|------|-----|---------------|-----|---------------|-----|---------------------------|---------------------------|-----|------|-----|
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb |
| FasTrak CSC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consultant Support | Develop RFP | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Replacement (may be multiple RFPs) | | | | | | Develop requirements & RFP | | | | | | | | | Vendor response | | Evaluation & Clarification | | | | BAFO | | Evaluate BAFO | | Award & finalize contract | | | | |
| Clipper System Integrator - RFP(s) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| System Integrator | Develop RFP | | | | Industry Review | | Finalize RFP | | | Vendor response | | Review | | Discuss, site visit, contract develop | | | | | BAFO | | Evaluate BAFO | | | | | Award & finalize contract | | | |
| Payment Gateway | | | | | Develop RFP | | Response | Clarification | Award & finalize contract | | | | | | | | | | | | | | | | | | | | |
| CSC Operations | | | | | | | | | | Develop RFP | | Response | | Evaluate | | | Award & finalize contract | | | | | | | | | | | | |
| Fare Media | | | | | | | | | | | | | | | | | | | | | | | | | | Fare Media RFP | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Updated 10/10/16



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 15-2026 **Version:** 1 **Name:**
Type: Report **Status:** Informational
File created: 10/11/2016 **In control:** Clipper Executive Board
On agenda: 10/24/2016 **Final action:**
Title: Next-Generation Clipper® (C2) System Integrator Request for Proposal (RFP) Development
Update on the progress of the C2 System Integrator RFP.

Sponsors:

Indexes:

Code sections:

Attachments: [4c_C2 RFP Development](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:
Next-Generation Clipper® (C2) System Integrator Request for Proposal (RFP) Development
Update on the progress of the C2 System Integrator RFP.

Presenter:
Jason Weinstein

Recommended Action:
Information

Attachments



Agenda Item 4c
Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

TO: Clipper® Executive Board

DATE: October 17, 2016

FR: Carol Kuester

RE: Next-Generation Clipper® (C2) System Integrator Request for Proposal (RFP) Development

This memo is intended to update the Executive Board on the development of the C2 System Integrator RFP.

MTC and transit operator staff are currently reviewing the C2 System Integrator Technical Package which will be incorporated into the RFP, with comments due on October 20, 2016. We are currently on track to issue an RFP for Industry Review in early 2017, as indicated in previous C2 procurement schedules.

As contracting agency, MTC has assembled a procurement team, consisting of staff and management from MTC's Clipper®, Contract Administration, and General Counsel groups, as well as outside legal counsel and technical advisors. The procurement team members prepare content based on their areas of expertise and meet regularly to discuss specific procurement and contract strategies and approaches and to finalize main portions of the C2 System Integrator RFP and contract.

In this and future meetings prior to RFP issuance, the Executive Board will be briefed and invited to provide input and guidance on several key decision points, including but not limited to:

- C2 System Integrator contractor assuming C1 operations;
- C2 System Integrator Design Process;
- Payment structures;
- Hardware ownership and purchase;
- Evaluation Criteria;
- Public Outreach and Input; and
- Contract Service Level Agreements (SLAs) and payment incentives and disincentives.

We will continue to work with and inform transit operator staff on the development of the RFP and will share updates with the Clipper® Executive Board.

Carol Kuester



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 15-2027 **Version:** 1 **Name:**
Type: Report **Status:** Informational
File created: 10/11/2016 **In control:** Clipper Executive Board
On agenda: 10/24/2016 **Final action:**
Title: Next-Generation Clipper® (C2) System Integrator Assumption of Clipper® Operations
Discussion of the benefits and risks of the C2 contractor assuming Clipper® operations.

Sponsors:

Indexes:

Code sections:

Attachments: [4d Revised-C2 System Integrator Assumption of Clipper® Operations](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:

Next-Generation Clipper® (C2) System Integrator Assumption of Clipper® Operations

Discussion of the benefits and risks of the C2 contractor assuming Clipper® operations.

Presenter:

Jason Weinstein

Recommended Action:

Information

Attachments



Agenda Item 4d
Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

TO: Clipper® Executive Board

DATE: October 17, 2016

FR: Carol Kuester

RE: Next-Generation Clipper® (C2) System Integrator Assumption of Clipper® Operations

At the August 2016 Clipper® Executive Board meeting, board members supported a recommendation to adopt a strategy in which the C2 system integrator would assume responsibility for the Clipper® Program when the current contract (C1) expires in November 2019. Weighing potential benefits with risks, the current plan remains having the C2 system integrator operate the C1 system once the current Clipper® contract expires in November 2019. The benefits include:

- No need for an extension of the current Clipper® contract or parallel system operations;
- Smoother transition of Customer Service Center operations to benefit Clipper® cardholders; and
- C2 system integrator understanding and knowledge of agency business rules, customer behavior, and unique operational environments during the design of the C2 system.

During the C2 system integrator Request for Expressions of Interest (RFEI) process, most vendors said that they would find taking over C1 difficult and recommended parallel operations. However, during interviews, they also said that they would be willing to assume operations of C1 as long as they were provided with adequate training and key technical information, including proprietary information necessary to integrate C2 cards with the C1 system. Some vendors gave examples of where they had assumed a legacy system's operation, while some expressed that the level of effort required to operate and maintain the existing system software and hardware would be difficult to estimate.

Staff will evaluate and monitor industry response to our current plan during the Industry Review phase of the procurement and will share any updates and feedback with the Clipper® Executive Board.

Carol Kuester

Attachment:

- Attachment A: Next Generation Clipper® Update: C2 System Integrator to Assume C1



Next Generation Clipper® Update

C2 System Integrator to Assume C1

10/17/2016

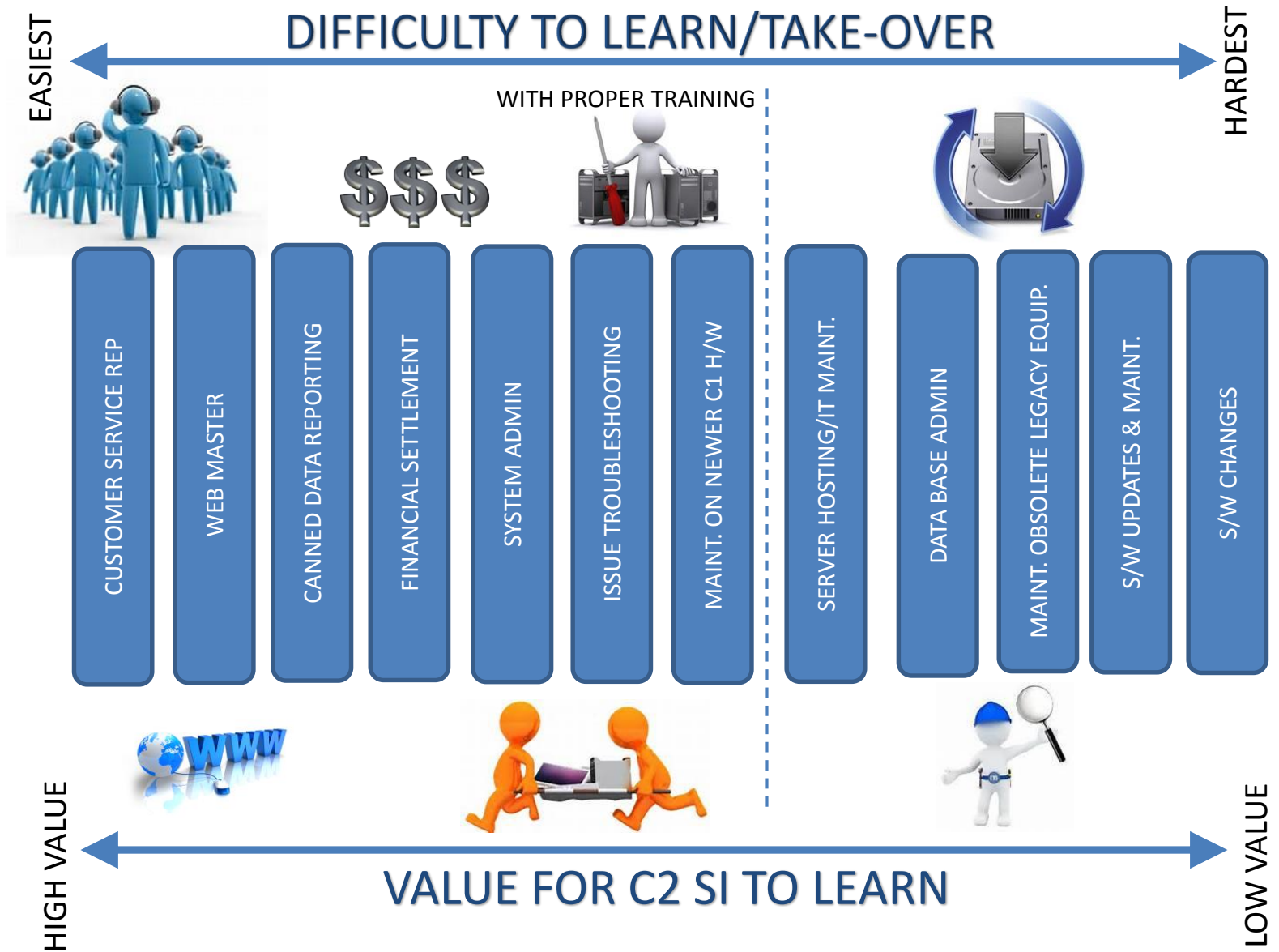
Agenda Item 4d
Attachment A - Revised

Current Plan: C2 SI Assuming C1 Operations

Benefits of current plan:

- No extension of current Clipper® contract or parallel operations
- One SI responsible for C1 System to C2 System transition
 - Better customer experience for cardholders
 - More transit operator control
 - SI will learn C1 shortcomings while designing C2
- C2 SI understanding during design
 - Customer service
 - Agency needs and operations
 - Back-office processes
 - Business rules
 - Infrastructure
- Incentive to showcase new system quickly

C2 System Integrator Assumes C1 Operations



Board Concerns About Requiring C2 Contractor to Operate Current System

| CONCERN | MITIGATION |
|---|--|
| Risky Plan: During RFEI, some vendors said this innovative approach is risky, and challenging to deliver | Contract Extension: MTC staff will extend the Cubic contract five years as safety net. |
| Incumbent Bias: Plan could appear inherently biased toward incumbent and limit the bidder pool. | Isolated Bid: The RFP will require separate price bids for operation of current system. Responsive to Industry: After Industry Review, the C2 Procurement team will be prepared to readjust approach based on responses to industry review RFP. |



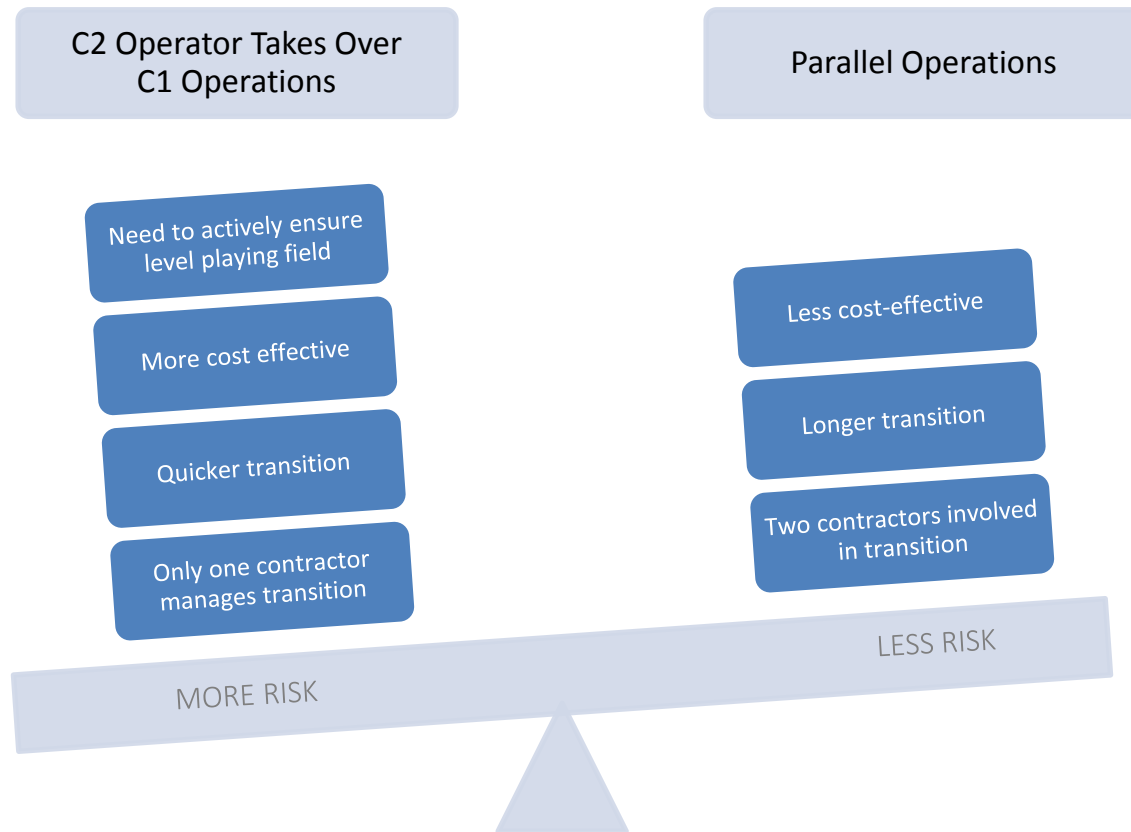
C2 Systems Integrator RFP

Scope of Work Structure

| RFP ATTACHMENT # | COMPONENT |
|---------------------|--|
| A | Scope of Work |
| A – 1 | System Requirements |
| A – 2 | Operations and Maintenance of C1 |
| A – 3 | Design, Implementation, and Testing of C2 System |
| A – 4 | Transition of C1 to C2 |
| A – 5 | Operations and Maintenance of C2 |
| A – 6 | Upgrades and Enhancements to the C2 System |
| A – 7 | End of C2 Term Transition |
| A – 8 | Service Level Agreements |
| A – 9 | Task Order Process and Form |



Trade-offs of Approaches to Manage C1 Operations



Region is seeking best possible deal, largest viable pool of bidders, acceptable level of risk



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 15-1950 **Version:** 1 **Name:**
Type: Report **Status:** Informational
File created: 9/16/2016 **In control:** Clipper Executive Board
On agenda: 10/24/2016 **Final action:**

Title:

Sponsors:

Indexes:

Code sections:

Attachments: [5a_Handout-APTA_Railvolution_Comparison](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Recommended Action:
Information

Attachments:

Railvolution 2016 vs. APTA 2015

| Type | Pass Characteristic | APTA 2015 | Railvolution 2016 |
|---|-------------------------------------|-----------|-------------------|
| Unique Card Usage | Active Cards | 1,150 | 1,023 |
| | Total Cards Given to Conferences | 2,000 | 1,500 |
| | Utilization Rate | 57% | 68% |
| Fare Revenue Impacts | Total Fare Revenue Lost | \$13,507 | \$21,632 |
| Usage on Multiple Operators | % of Cards Used on 1 Operator | 64% | 41% |
| | % of Cards Used on 2 Operators | 31% | 44% |
| | % of Cards Used on 3+ Operators | 5% | 15% |
| Usage on Operators with Highest Ridership | % of Total Trips on BART | 46% | 55% |
| | % of Total Trips on Muni | 47% | 36% |
| | % of Total Trips on Other Operators | 7% | 9% |

No Revenue Loss to Operators*

| | Item | Item Cost/Price | # of Items | Total |
|----------------------|--------------------------|--------------------|---------------------------|-------------------|
| Railvolution 2016 | Pass Revenue | \$25 | 1,500 | \$37,500 |
| | Card Cost | \$3 | 1,500 | - \$4,500 |
| | Foregone Revenue | | | - \$21,632 |
| | | | Revenue Earned | + \$11,368 |
| APTA 2015 | 5-Day Convention Pass | \$25 | 2,000 | \$50,000 |
| | Card Cost | \$3 | 2,000 | - \$6,000 |
| | Foregone Revenue | | | - \$13,507 |
| | | | Revenue Earned | +\$30,493 |

*Expenses do not include costs for Cubic to settle and distribute funds.