

ALAMEDA-CONTRA COSTA TRANSIT DISTRICT



STAFF REPORT

MEETING DATE: 11/8/2023

Staff Report No. 23-467

TO: AC Transit Board of Directors
FROM: Michael A. Hursh, General Manager/Chief Executive Officer
SUBJECT: Next Generation Clipper (C2) Program Implementation

BRIEFING ITEM

AGENDA PLANNING REQUEST:

RECOMMENDED ACTION(S):

Consider receiving an update on the Next Generation Clipper (C2) Program implementation.

Staff Contact:
Ahsan Baig, Chief Information Officer

STRATEGIC IMPORTANCE:

Goal - Convenient and Reliable Service
Initiative - Infrastructure Modernization

The Next Generation Clipper program will modernize the Clipper payment system to allow riders to manage their Clipper accounts online, get immediate access to added value on their Clipper accounts, allow for several payment options like contactless credit/debit card payments as well as physical Clipper cards and mobile Clipper cards that are already available, and give riders the ability to replace the physical Clipper Card with a phone-based mobile application.

BUDGETARY/FISCAL IMPACT:

There is not fiscal impact in receiving this report.

BACKGROUND/RATIONALE:

Update on the Regional C2 Milestones and Current Implementation Schedule

The regional Clipper 2 (C2) project has recently completed the project milestones that focus on achieving operational readiness and a mid-Summer 2024 system launch. As led by the Metropolitan Transportation Commission (MTC) and the C2 system vendor Cubic, transit properties, including AC Transit, have worked side-by-side to assess fare-based and operational impacts and design and testing documents in support of that target date.

The District utilizes the Regional Document Hub to access and review the technical and management documentation and collaborate with all the stakeholders for the Next Generation Clipper program. The C2

project is scheduled to launch in mid-Summer 2024.

MTC Executive Director of Clipper program, Carol Kuester announced her intent to retire from MTC in November. AC Transit Staff wants to take this opportunity and recognize Carol's leadership, guidance and oversight throughout the Clipper 2 upgrade program. It is because of her tremendous efforts in collaborating with all the transit operators that the project testing and revenue ready activities are moving forward.

The District's General Manager and Chief Information Officer continue their full participation in the Clipper 2 Executive Board and Clipper System Liaison (CSL) Committee meetings respectively. A District internal Clipper 2 Working Group comprised of IT Department, Finance, External Affairs, Marketing & Communications and Operations, will coordinate agency-wide implementation of C2 into the Fall of 2024.

Cubic is scheduled to achieve revenue ready status in time for the customer transition beginning in mid-summer 2024. The first step of that readiness requires the completion of public-facing and Clipper 2 systems testing. The District has successfully completed the On-Board Validators (OBV) testing of each prototype, required during current C2 On-Board Validators installation on each bus type. Those OBV installations are scheduled to be completed by Dec. 31, 2023.

Regional Testing Activities

The C2 integration with the Clever Devices CAD/AVL system just completed a nine (9) month long design, development and testing phase that confirmed the bus on-board C2 devices are capturing the correct fares and that the Cubic back-end system is receiving that fare data.

The User Acceptance Testing (UAT) and system demonstration testing has been completed. The UAT and C2 Systems Demonstrations together define the system integration testing (SIT). This SIT is scheduled for completion by mid-November 2023.

Bus Coach On-Board Vehicle Fleet Installation

Cubic bus coach installers, along with the District maintenance staff, completed the bus-type engineering reviews in September 2023 so that the installation of on-board vehicles (OBV) installations could begin by October 3, 2023. Those units are being installed at a rate of 3 per -day and are now scheduled to be completed early 2024.

Clipper 2 OBVs are installed at each door for every bus type. Bus Coaches with three (3) doors will receive three (3) installed units. However, no rear door boarding will be activated. All rear door OBVs will have power to ensure that the batteries remain under warranty and are being covered to prevent their use by customers. Clipper boarding will continue to occur only at front coach doors except for the bus fleet that is included in the District's all-door boarding pilot program.

Stand Alone Validators

During the C2 OBV installation and the transition from C1 to C2 devices on District bus coaches, all customer C1 fare instruments will continue to function as designed. The transition to the C2 central processing systems will occur after the C2 business rules and the C2 mobile application has been fully tested. The customer transition to the C2 system is scheduled to begin in late Summer 2024.

Clipper 2 Integration with District Systems

It was necessary to implement project centric improvements to the Clever Devices systems, the Genfare System, Enterprise Database and the Cubic systems. These improvements were completed over nine (9) months. These improvements were tested and accepted by a cross-section of subject matter experts in early Sept 2023. These improvements were required to ensure that all of these systems have aligned data definitions in order to record fare collection along the system stream.

Fare Readiness

To leverage the full potential of C2 system technology and enhance participation in regional coordination, the District plans to implement the following measures:

1. Introducing monthly (calendar) fare capping alongside the existing Day Pass (daily fare capping).
2. Replacing current mag-strip ticket Day Pass and 31-Day Pass with Clipper “Limited Use” Day Pass and 31-Day Pass ticket.
3. Offering free intra-agency transfers within a two-hour timeframe.

In addition, MTC has initiated “Free and reduced transfers” program across the 22 agencies utilizing Clipper for fare payments as part of the C2 rollout.

Additional C2 Project Updates

The following table is a list of the C2 milestones also reflected in Attachment 1.

ITEM	DISTRICT ACTIVITY
Fare Integration	District approved implementation of fare
C2 Business Rules	Resubmittal by Cubic and review by ACT completed.
C2 Bus Type Engineering and C2 Coach Hardware Installation	Cubic and District Maintenance teams completed design review for all ACT bus types. Cubic installation of District designated bus coaches in progress and scheduled to be completed by Dec 31, 2023
CAD/AVL Data Integration with Cubic C2 System	Completed integration of Clever Devices CAD/AVL system with C2 back-end office system. Ensured system agreement on route naming and numbering, updating Genfare farebox
Clipper Monthly Boardings and Mobile Card Usage 1	ACT monthly Clipper boardings increased from 965, 393 in July 2022 to 1,201,535 July 2023 Clipper trips using mobile card increased to 28 percent for Bay Area region 352,656 trips on ACT using Clipper mobile cards 22.63% of all Clipper trips on ACT used Clipper mobile cards
Customer Service	Replaced the legacy Customer Service Terminals Staff commented on Retail Solution Design

ADVANTAGES/DISADVANTAGES:

This report apprises the Board about ongoing activities related to the Next Generation Clipper Project. There are no disadvantages to receiving the report.

ALTERNATIVES ANALYSIS:

No alternative analysis was completed for this report update.

PRIOR RELEVANT BOARD ACTION/POLICIES:

Staff Report 23-221 Net Generation Clipper (C2) Program Implementation

Staff Report 22-606 Clipper 2 Update

Staff Report 22-444 Clipper 2 Amended and Restated MOU with the Metropolitan Transportation Commission

Staff Report 21-158 Recommended Budget FY 22/23

Staff Report 15-194 Amendment Clipper MOU

ATTACHMENTS:

1. NexGen C2 Executive Summary Oct 6, 2023
2. Regional Snapshot C2 Schedule Oct 6, 2023

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