File #: 2015-0344, **File Type:** Informational Report **Agenda Number:** 56.

EXECUTIVE MANAGEMENT COMMITTEE
JUNE 18, 2015

SUBJECT: CUSTOMER EXPERIENCE TECHNOLOGY IMPROVEMENTS

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on **efforts underway to use technology and innovation to improve the customer experience on Metro's Bus and Rail system**, and mobility in the region in general.

ISSUE

This report provides key accomplishments since the last update in February 2015 to further the goal of improving the customer experience as well as a look-ahead to the next quarter.

DISCUSSION

The following is a summary of progress on customer focused activities for the referenced period.

1. Metro Gamification Study - Completed

The Coro Fellowship was commissioned to author a white paper on gamification in transit with the goal of retaining riders and increasing ridership. The paper includes sections on gamification theory, demographics, examples of successful programs employed at other transit agencies and concludes with some considerations and recommendations for implementing a gamification program at Metro. Interviews with gaming departments at both UCLA and USC were conducted along with live customer surveys over a two-week period in several service areas within the county.

2. Customer Oriented Technology Based Investment Strategy - Completed

The Customer Oriented Technology Based Investment Strategy is a comprehensive technology strategy which focuses on improving the customer experience.

The strategy includes: a summary of findings of existing customer facing systems and services which currently fall short of the ideal experience; a customer experience journey lifecycle model with identified customer touch-points; and a vetted and ranked list of applications which will

improve/enhance the customer experience at customer touch-points.

During the course of the project, existing applications and practices were analyzed, stakeholders were identified and approximately 40 were interviewed; technological deployments at 15 - 20 other transit agencies were examined; and an Executive Steering Committee representing key Metro Departments was created for reviewing findings and recommendations, including final evaluation of proposed pilot projects.

Potential funding sources were identified to support the investment strategy.

The committee, and their teams, evaluated the 28 candidate projects and ranked their relative priority. The top projects were selected with initial funding assigned to them for pilot implementations.

During the next fiscal year, ITS, in conjunction with appropriate stakeholder departments, will implement top-rated projects as proofs-of-concept or demonstration programs to further evaluate them for enterprise-wide adoption.

3. Itinerary Mass Email Database Program - Completed

This new application captures thousands of customer email addresses in the Metro Contact Center with associated route usage data during the process of emailing transit trip itineraries. Customers who elect to opt in will receive targeted alert, detour and service bulletin information via email and/or text broadcasts in advance of their travel.

4. ShakeCast System - Completed

ShakeCast is a post-earthquake situational awareness application that automatically retrieves earthquake shaking data from the United States Geological Survey (USGS) ShakeMap.

As configured, it compares intensity measures against Metro’s facilities, and generates potential damage assessment notifications, facility damage maps, and other Web-based products for emergency managers and responders.

The implementation at Metro allows rapid response by engineers following an earthquake to assess damage to rail stations and other transit facilities and take precautionary measures to ensure public safety and create real-time preliminary cost estimates for inclusion in state / federal financial aid programs.

5. ShakeAlert Earthquake Early Warning System (EEWS) ROC Pilot Project - In progress

Los Angeles Metro is currently a beta tester of the USGS ShakeAlert Early Earthquake Warning System (EEWS). The beta test consists of a PC workstation installed on the Rail Operations Control (ROC) floor manager desk at the Central Control Facility (CCF).
The system provides a visual and audible alert of impending shaking including:

- Countdown timer
- Location of epicenter
- Expected intensity at ROC/CCF
- Audible warning message

The system has been proven to reliably and accurately provide advance warning with no false alarms.

The pilot project will integrate EEWS automation into various rail systems in an effort to minimize the loss of life and property in the event of a major seismic event. The objective of the pilot is to achieve a maximum benefit in the shortest possible time at a reasonable cost. CCF is the chosen location as it houses the head end for many rail systems and transit security functions including:

- Rail Digital Radio and Public Address system - Automatic emergency broadcast
- Elevator - Automatic recall to safest floor position
- Supervisory Control and Data Acquisition (SCADA) system - Dispatcher alert
- Emergency Generator - Automatically start the generator

Metro Risk Management is leading the pilot assessment, Rail Operations Control is responsible for the actual implementation, and ITS is evaluating the technical options for extending the technology enterprise-wide.

This project represents the crucial first step in creating a comprehensive earthquake early warning system for transit users throughout the county.

6. Insource and Automate Bike Locker Rental Registration Program - In Progress

This previously outsourced program has grown considerably over the years as additional rail stations have been built and brought online. The associated manual registration system is no longer cost effective at the higher scaled usage levels.

The goal of this project is to take advantage of the economy of scale provided by the Metro Contact Center and to automate the associated manual records management component.

This project represents yet another collaborative Metro effort by multiple departments including Planning, Customer Relations and ITS. Customer communications has already been insourced with live queries being handled directly by Metro Customer Service Agents. A new computerized locker management system, custom written for this unique application by ITS staff, is nearly complete and will be implemented during the next quarter.

7. Wi-Fi on Buses - Lab Testing Completed, Field Testing In Progress

Field testing of nine Wi-Fi equipped buses began this quarter and will continue through the next

quarter.

To date, the evaluation has gone relatively smoothly. So far, Metro technical and operations staff have determined that the technology is viable, relatively reliable and straightforward to retrofit to existing buses. Newer buses with the latest security cameras can be retrofitted somewhat faster and easier.

The Wi-Fi equipped units are actually running in service today. Most of the testing so far has been accomplished by monitoring each unit's eleven camera feeds via PCs accessed at Metro Headquarters. Project staff is working on a plan to either allow limited direct access to Wi-Fi by customers on the buses or by staff emulating customer access.

For the next quarter, in addition to user testing of cellular services on the nine buses, Metro is pursuing the development of a solicitation to explore a mesh network (or similar technology) based solution for rail and/or fixed route services.

8. New TAP Collaboration Website - Completed

A new website, <http://nextgenfares.net> was created and implemented through a combined effort by TAP and Metro ITS tech staff to support collaboration among 24 participating TAP agencies in the region to begin the discussion and exploration of new technologies needed to create the Future Fare Collection System which will ultimately become the upgrade/replacement for the current TAP system.

The facilitation site provides features for discussion and sharing of ideas, surveys, uploading of technical and product information, coordinating and documenting meetings etc. to ensure open access and input by all TAP participants.

9. Metro Participation in CityLinkLA project - Board Approval

In April, the Board approved a recommendation to allow Metro to participate in the City of Los Angeles Community Broadband Network RFP (CityLinkLA).

The CityLinkLA project seeks to provide fiber to every residence and Wi-Fi in all developed areas in Los Angeles. Participation in this project has the potential to advance Metro's initiatives cited above by leveraging the fiber and Wi-Fi technology to be expanded in the City of Los Angeles.

The City's Information Technology Agency has formally requested Metro's participation and pledging limited use of Metro Assets in exchange for a like-kind value of Internet-based technology services to Metro.

10. Autonomous - Connected Vehicles - Research

Metro's Highway Programs group engaged the Coro Fellows to develop an annotated bibliography of the latest information on autonomous vehicles to facilitate staff's research on the subject. The bibliography was completed during the period.

11. TAP Vending Machine (TVM) Screen-Flow Improvement Implementation - In Progress

Enhanced, user-friendly TVM screen-flows previously developed in the TAP Development Lab have been installed at all Union station TVM's. Rollout to the busiest stations has begun and will be implemented to all TVM's by fall 2015.

NEXT STEPS

Staff will develop and implement customer experience related initiatives as well as continue to evaluate other technology applications that will benefit Metro's customers.

Look-Ahead for Next Period

Staff will report back next period with a progress update on a variety of customer related technology initiatives, including:

A. Production implementation of multi-modal trip planner with integrated real-time data.
B. Implement Customer Information Center Software and phone system replacement with new customer features such as a call back feature.
C. Complete TAP Customer Relationship Management (CRM) System pilot implementation.
D. Automate the bike locker rental/registration program.
E. Complete developing a solicitation for expanding Wi-Fi pilot to include mesh network (or similar) technology for rail and/or fixed route services.

ATTACHMENTS

Attachment A - Gamification Study

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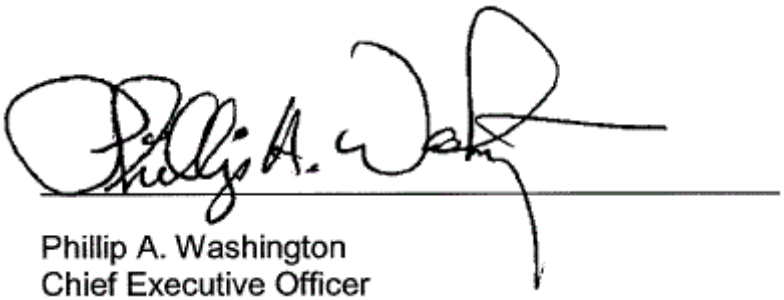

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