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**EXECUTIVE MANAGEMENT COMMITTEE
NOVEMBER 6, 2014**

SUBJECT: CUSTOMER EXPERIENCE TECHNOLOGY IMPROVEMENTS

ACTION: RECEIVE AND FILE STATUS REPORT

RECOMMENDATION

Receive and file the status report on efforts underway to use technology and innovation to improve the customer experience on Metro's Bus and Rail system.

ISSUE

This report provides key accomplishments since the last update in July 2014 to further the goal of improving the customer experience as well as a look-ahead to the next update in February 2015.

DISCUSSION

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

1. New Version of Metro Trip Planner – Rollout Underway

The new version of Metro's trip planner provides mixed-mode functionality with new travel optimizations and Nextrip real-time data integration when appropriate. The new design automatically adapts to various screen sizes from smart phones, tablets and desktop computers. The new 'access mode' feature supports auto, bicycle, walking, and wheelchair modes and displays the proposed itinerary on the map in addition to providing full-text, turn-by-turn instructions. Full-screen maps and a new 'autocomplete' feature simplify the entering of origin and destination locations to enhance ease-of-use. The feature also stores frequently accessed locations to minimize retyping.

An updated mobile version will be added in the next quarter that will provide geo-positioning information for improved connection information. Proximity functions are also in development that will extend beyond transit connection information (i.e. retail and entertainment information) as datasets become available.

The trip planner enhancements are being rolled out in phases to help ensure the expected increase in patron volume can be readily accommodated.

2. *Go-Metro Mobile Application – v3.0 Upgrade – Completed, Beta Release*

A new beta version of Metro's Go-Metro mobile app was released with the following new features:

- **Native Trip Planner** – The trip planner is integrated into the app and will allow mixed mode transit: rail, bus, bike, park & ride, and walking.
- **Maps** – Along with Nextrip realtime arrival service, the customer may view a live map of their line with vehicle location. Integration of go511 road information will also be added later in a software update.
- **System Alerts** – Alerts and notifications are displayed in context to customer's relevant lines and stations, e.g., alerts are provided for their routes and favorite lines. It also allows the patron to filter/sort their alerts by bus, rail or elevator.
- **Customer Assistance and Help** – Contact info for Customer Relations, TAP, and Sheriff Transit Unit is now one-click away from the main screen for quick customer help. Locations of Metro Customer Centers and TAP resellers are integrated into the map. Reporting suspicious activity feature will also be added later in a software update.
- **MyMetro** – Expanding on allowing patrons to designate a favorite station, stop, line, map, or trip; this feature uses the patron's history to display notifications, alerts, and messages in context to their saved items.
- **New App Design** – Updated user interface to be current with both Apple iOS and Android systems, with notifications and messaging in context sensitive presentation.

3. *Nextrip Bus Arrival Displays at Patsaouras Transit Plaza Bus Bays – Completed*

New real-time bus arrival displays and bus bay markers have been installed in Patsaouras Plaza. Each of the 9 bus bays are designed to provide arrival/departure information by specific line. This information will provide an easy way for the customer to confirm he/she is standing at the right bus bay and how many minutes before the next bus will arrive. The new displays also offer an opportunity to provide service

information (fare changes, schedule changes, etc.) to better inform Metro's patrons of system updates.

4. *Customer Oriented Technology Based Investment Strategy – In Development*

Much work was completed during the period in developing the Customer Oriented Technology Based Investment Strategy. The Strategy has been drafted. It is currently being vetted by the Executive Steering Committee.

Specific accomplishments are outlined below.

a. Completed Phase 1 – Discovery activities:

- Interviewed 38 Metro management and staff members to obtain information regarding Metro's current and planned customer experience initiatives, technologies, successes and challenges.
- Obtained Metro customer feedback, including needs and challenges.
- Reviewed overall "as-is" Metro customer experience by examining the various touch points in each stage of the customer journey from planning the trip to arriving at one's destination.
- Reviewed the findings from the Discovery phase with the Executive Steering Committee, which was established to provide oversight to the overall effort and a shared customer experience vision across the Metro organization.

b. Completed Phase 2 – Analysis activities:

- Researched best practices, strategies and technology trends at 14 major US and international cities and companies (e.g. New York Metropolitan Transportation Authority, Massachusetts Bay Transportation Authority, Transport for London (TfL), China Telecom, Gartner Group, etc.) as well as reviewing best practices and emerging technology trends identified by research organizations.
- Defined "to-be" customer experience.
- Completed gap analysis between as-is and to-be customer experiences and developed recommendations to address the gaps.
- Engaged the Executive Steering Committee to assist in developing the Metro customer experience Vision, Values, Mission, Goals, Objectives, Initiatives, and Prioritization Criteria.
- Reviewed findings and recommendations from the Analysis phase with the Executive Steering Committee.

c. Completed the following Phase 3 activities:

- Defined four “to be” ideal customer experiences, tailored for different Metro market segments.
- Developed a list of candidate initiatives and their supporting projects.
- Identified duration (short term, long term) for each project.
- Prioritized projects based on defined criteria.
- Reviewed recommended initiatives and projects with Executive Steering Committee.
- Defined Investment Strategy for initiatives and projects

The draft investment strategy including funding recommendations will be vetted and finalized in the next quarter.

Additionally, a federal grant request for the “Ladders of Opportunity Initiative” has been submitted that if approved, would provide approximately 300 Nextrip electronic sign displays at high pedestrian volume bus stop locations. These displays would provide real-time arrival information at on-street locations. Notification of grant awardees, including the proposed \$3.5 million grant award for Nextrip e-signage, is anticipated in early 2015.

5. *Initiated Development of Bluetooth Low Energy Beacon Demo for Union Station*

A proof of concept demonstration is under development for Union Station that uses Bluetooth low energy beacon technology to provide customers with personalized concierge-type information. These small wireless transmitters (called beacons) cause contextually relevant messages to appear on nearby mobile phones and tablets. These may include welcome messages, vehicle arrival times, service alerts, and where to go for more information.

Beacon applications recognize users and may encourage frequent riders to subscribe to relevant information. For example, riders transferring from the Red Line to the Gold Line at Union Station may be automatically notified when the next Gold Line train to Sierra Madre will arrive.

Riders with special needs may be guided to the nearest information kiosk. Tourists can be pointed to the correct bus bay in their native language. Baseball fans could be guided to the Dodger Stadium Express.

The test beacons will help welcome riders to Union Station. They will receive a notification from Passport (in the iPhone) or Google Wallet (in an Android phone) with the welcome. The notification is like receiving an SMS or text message. Open this message and optionally link to walking tours, a map to the Silver Line, or a history of Union Station.

6. *Technology Roundtable Workshop with Industry Leaders – In Planning Phase*

A one-day technology roundtable workshop entitled “Metro and the Digital Future” is planned. It will convene a variety of industry leaders across a variety of transportation modes to discuss Metro’s needs and potential solutions related to: next generation trip planning and fare systems; the transit station of the future; and multi-modal integration. The workshop will bring together representatives from transit, technology, academia, bike/car sharing and government with the intent of collaborating and identifying a list of promising ideas that Metro may wish to pursue to enhance the customer experience, now or in the future. The Customer Technology Roundtable Workshop is scheduled for November 7, 2014.

7. *Google WAZE Data Exchange – Agreement Executed*

WAZE is a very popular mobile application from Google for motorists that use dynamic information from subscribers (a technique called “crowd sourcing”) to optimally route vehicles around road construction and traffic incidents so that they may arrive at their destination as quickly as possible. Google has selected ten partners (called the “W10”) from around the world to pilot a data interchange of traffic incident and road closure information. Los Angeles County was selected by Google as one of the W10 jurisdictions for the information interchange. Metro and Google have arrived at mutually agreeable terms and the agreement is being executed. This agreement will provide Metro with more comprehensive and current traffic incident data.

8. *New Advanced Mobile Payment App Development – Completed Specification Phase*

Staff continued monitoring developments in mobile consumer technology during the period. In September, Apple announced that it would begin to support near-field-communications (NFC). Now both leading mobile operating systems (Android and iOS) will support NFC. Staff factored in these developments when completing the specification for the new advanced mobile payment application. In addition, staff has identified potential procurement strategies and is in the process of reviewing them with management.

9. *Director of IT (Digital Strategy and Innovation) – Position Filled*

Recruitment for the Director of Information Technology (Digital Strategy and Innovation) was completed in October, 2014. This new position will assist with the development of a customer technology vision and monitor the various projects, planned and in development, to ensure that Metro’s commitment to improving the customer experience is maintained. This position is already included in the approved FY15 budget. This notification is included in response to a Board Motion requesting a status update on this recruitment.

NEXT STEPS

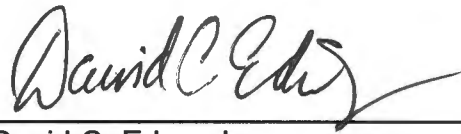
Staff will develop and implement the customer experience related initiatives as well as continue to evaluate other technology applications that will benefit Metro's customers.

Look-Ahead for Next Period

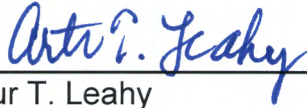
Staff will report back in February 2015 with a progress update on a variety of customer related technology initiatives, including:

- A. Results of the one day workshop (Metro and the Digital Future) on improving the customer experience.
- B. Wi-Fi on buses, trains and stations – pilot testing of Wi-Fi on selected buses to obtain metrics and gauge feasibility and interest for broader scale implementation.
- C. Customer Oriented Technology Based Investment Strategy – finalization of Metro's technology-based investment strategy for improving the customer experience including funding recommendations.
- D. TAP Vending Machine (TVM) Screen-Flow Improvements - As Metro's fare change was implemented in mid-September, the TVM change has been pushed back so that customers are not faced with too many changes at one time.
- E. TAP Call Center – Transition of the TAP Call Center from an outsourced function to a Metro in-house operation is expected to be completed next period.

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