Metro

Board Report

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File #: 2015-1294, **File Type:** Informational Report　　　　　　　　　　　**Agenda Number:** 55.

**EXECUTIVE MANAGEMENT COMMITTEE
SEPTEMBER 17, 2015**

SUBJECT: CUSTOMER EXPERIENCE TECHNOLOGY IMPROVEMENT

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, and mobility in the region in general**.

ISSUE

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

DISCUSSION

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

1.　*Multi-Modal Metro Trip Planner Stage 1 Implementation - Completed*

　　The Trip planner is a high volume application (several million monthly queries) and as such warrants a staged, soft implementation to insure adequate compute resources, and time for users to learn and adapt to new features.

　　New features include, multi-modal itineraries including biking, walking and driving to the nearest parking/transit location, real-time scheduling for 19 different carriers, and connections to Metro sponsored vanpools and Uber.

　　The new planner also features a full size live map and utilizes adaptive design to automatically adjust to various screen sizes in support of desktop, tablet and smartphone devices.

　　This period (Stage 1) a link was added to the existing trip planner for users to try new features which have been beta tested by the Metro Contact Center. The current planner remains the default.

Next period, (Stage 2) the new trip planner will become the default trip planner with a link back to the old trip planner.

Finally, (Stage 3) the link back to the old trip planner will be dropped. Updated web-services for all trip planner functions have been developed for use by mobile developers, 511 support, Access Services support, and the Regional Rideshare program. This eliminates the need for 511, Access Service and the Regional Ridership program from having to develop independent and duplicative trip planning algorithms.

2. *Bike Locker Rental - Completed*

This period, the automation component of the Bike Locker rental/registration program was completed. Customers can now register and rent a bike locker (including electronic payment) online without agent intervention.

Future work will focus on the expansion of the locker program to include bike hubs (possibly secured with TAP cards) to increase Metro's bike capacity at transit facilities.

3. *TAP enhancements and new Customer Relationship Management (CRM) System - Completed*

The TAP website has been redesigned and streamlined for easier customer use.

The TVM screens continue to be retrofitted with the new simplified screens formats previously implemented at Union Station.

The new TAP CRM is now live and supports eight departments (e.g., TAP Fare Sales, TAP Customer Information, Reduced Fare, A & B TAP, TAP Back Office/Finance, TAP Operation, TAP Vendor Network, and Accounting etc.) with separate business rules and processes. TAP customer support is now a completely in-house operation using Salesforce cloud-based CRM software providing a cost-effective, scalable, computing solution. Previously contracted CRM services will be dropped.

4. *Implement Customer Contact Center Phone System - Operational*

A new phone system complete with comprehensive Contact Center Management software has been implemented to support The Metro Information Center and is in live use today. This new system will allow the Center to more effectively support all forms of customer contact including telephone, email, chat, and social media. Specialty modules providing optimal staff scheduling, live recording features, real-time call management, social media mining and basic voice recognition and text-to-speech capabilities are in the final design/implementation phase.

5. *GoMetro Mobile App upgrade - Completed*

A revised version of the GoMetro mobile app integrated with beacon technology was deployed on a limited basis during the Special Olympics. The technology was tested to validate beacon reception and identification routines near some of the venues where beacons had been previously installed.

6.   *Enterprise Digital Display Program   - In Progress*

Metro ITS along with other operational departments have been meeting and collaborating to address digital display requirements agency wide to create an enterprise solution.

Enterprise digital displays include:

Rail Station, Subway and Transit Way stations - These displays (approximately 300) are located at stations and provide train and fixed route arrivals, alerts and other information to assist passengers at the stations. Various components are aging and in need of replacement/refurbishment. There are some software incompatibilities and deficiencies depending upon the initial station construction dates. A program for updating the displays is being developed for near term implementation.

Bus Stop locations - These displays are relatively new and provide real-time information for Metro buses at on-street bus stops using next trip technology. Most are associated with bus shelters. A scope of work for an RFP has been developed to expand the initial network to approximately 300 units. Locations have been identified based on ridership levels, and route density at each location. Other agencies that share stop locations with Metro service will also be supported.

On-Board Displays - These displays represent new technology being developed and tested on Wi-Fi equipped buses. The current bus Wi-Fi pilot will be expanded to include 150+ buses. Target routes currently being considered are the Orange Line, Silver Line and Rapid buses. These displays will map the current location of the vehicle, approaching stops, connecting services, major landmarks and nearby retail locations. Advertising and gamification potential will also be explored.

Kiosks - These displays are interactive featuring software that will allow customers to handle all of their travel needs using self-help applications via touchscreens. Providing near virtual agent capabilities, they are currently targeted for selected major transit hubs and stations across the service area as part of a pilot effort.

The goal of this program is to consolidate efforts and create standards and operational solutions that provide complete, accurate and consistent messaging to our customers while enhancing the customer experience.

7.   *Innovation Alliance Formed - XBUS Pilot - In Progress*

Metro ITS staff has met with the Santa Clara Valley Transit Authority, AC Transit, and Portland Tri-Met to explore the creation of a West Coast Innovation Alliance.

The four agencies are all actively engaged in focused efforts to explore and pilot new technology innovations for transit. The agencies share common ground with regard to Open Source software and open standards and will make technology developed available to other transit agencies across North America.

The Alliance's first effort will be to explore and create the specifications for a new advanced transit vehicle (i.e. XBUS) with state-of-the-art digital communications and onboard computing abilities to make transit safer, more reliable, and customer friendly.

8.   *Metro Rail System Cellular and Wi-Fi project, Phase I - In Progress*

Cellular Communications in Subway Tunnels - Infrastructure construction work continues on the Phase One portions of the Red and Purple Line stations and tunnels. (The Phase One segment spans from Union Station to 7th Metro.) In June 2015, Metro signed a lease agreement with InSite Wireless for the base station hotel to be located on Metro property. This communications room is needed to house the cellular radio equipment for the wireless providers and is a critical milestone in the project. Design, engineering, fabrication and installation of the structure is proceeding and projected to be completed in December/January timeframe.

The other critical infrastructure component is the distributed antenna system required for maintaining signal strength within the tunnels. The DAS is slated for completion by the end of the year. Much of the antenna work is already done but other unrelated priority maintenance work in the tunnels is now being performed before the remaining antenna work can be completed.

Together construction of the base station hotel and completion of the distributed antenna system make up the InSite Wireless infrastructure needed to support cellular service in the first segment of the subway. That said, signed agreements between InSite Wireless and each of the wireless carriers (AT&T, Verizon, T-Mobile and Sprint) are also needed. Negotiations between InSite and the wireless carriers are ongoing but agreement has yet to be reached with any of the four carriers. Once an agreement is signed and the aforementioned infrastructure is completed the carriers will require at least one month of installation and testing before going live with their cellular signal in the Phase One stations and tunnels.

Wi-Fi Coverage in Subway Stations - The Wi-Fi portion of this project is a separate system and requires different infrastructure and agreements. InSite partnered with Internet Service Provider (ISP), ViaSat, for a 60-day pilot test of Wi-Fi in the Historic Union Station which began on July 25.

The main purpose of conducting the Wi-Fi pilot is to provide ViaSat sufficient customer usage data for determining if they are interested in contracting with InSite (at a negotiated cost) for the right to install Wi-Fi at all subway station platforms. ViaSat is currently collecting customer usage metrics. InSite Wireless will meet with ViaSat in September to discuss potential expansion of the service into Union Station East and other Metro properties. Metro will continue to track the status of contracting activities as they proceed. Along with usage metrics, Metro has also been monitoring customer comments on social media on their experience of the pilot service. To date, the customer response has been positive.

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.
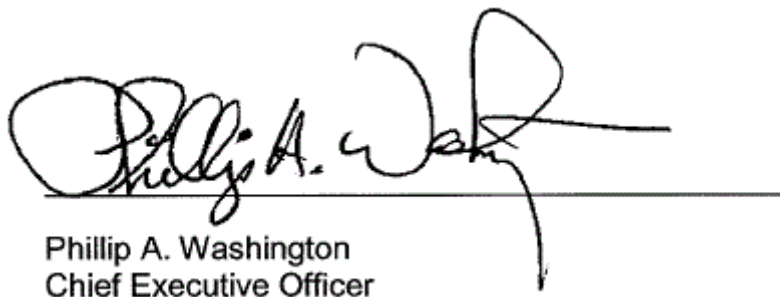
Look-Ahead for Next Period

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

A. Implementation of an Enterprise Map Server - supporting real-time and alerts for 69 agencies.

B. ShakeAlert Implementation - Earthquake Early Warning System.

C. On-Board Digital Display technology pilot report.

D. Beacon technology pilot to implement a mobile app for wayfinding within Union Station as well as providing location based information such as station maps, station art, local restaurants, etc.

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