



Metro

Los Angeles County
Metropolitan Transportation Authority

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November 18, 2015

TO: BOARD OF DIRECTORS

FROM: PHILLIP A. WASHINGTON *PAW for*
CHIEF EXECUTIVE OFFICER

SUBJECT: METRO RAIL SYSTEM CELLULAR AND WI-FI UPDATE

ISSUE

In May 2015, Metro staff updated the Board of Directors on the estimated schedule for the four phases of this project (Attachment A). This is a progress update.

DISCUSSION

In February 2013, the Metro Board authorized the CEO to enter into a 20-year contract with InSite Wireless to provide cellular coverage in the Metro underground rail system tunnels and stations, and for Wi-Fi in the Metro underground rail stations. The contract was structured to be a revenue generator for Metro.

At my request, Metro staff convened an onsite meeting of the key players in this project on October 15, 2015. These stakeholders included executive managers from: InSite Wireless, AT&T Wireless, Sprint, T-Mobile, Time-Warner Cable Business Class and Metro's project staff. The primary objective was to provide me with the opportunity to meet these key individuals and personally impress upon them the importance of activating Wi-Fi and cellular service in our stations and tunnels, respectively. I emphasized that these services were not only a helpful amenity for our riders but these services are needed for safety and security reasons. I wanted to ensure everyone knew that Metro is committed to move forward as expeditiously as possible and will assist where necessary. I also shared the importance of implementing as much service as possible prior to the potential ballot measure.

After getting a status briefing from InSite on the current schedule we had a spirited discussion with all regarding perceived challenges still in our way to efficiently progress toward full implementation. To that end, I directed our new Chief Innovation Officer, Dr. Joshua Schank and Chief Information Officer, Dave Edwards to continue an aggressive dialogue to close any remaining gaps to moving forward.

With that said, the updates are as follows:

- Completion of Phase 1 cellular infrastructure (Union Station to 7th Metro Center) is slated for December 2015. Individual agreements between InSite Wireless and each of the cellular carriers must still be reached.

- Negotiations with Verizon Wireless are in the final stages. This pending agreement would initially extend Verizon's coverage into the subway from Union Station to 7th/Metro Center by approximately Q1 of 2016.
- Negotiations with AT&T, Sprint and T-Mobile for their cellular coverage are ongoing.
- Negotiations are ongoing between InSite Wireless and an Internet Service Provider (ISP) for providing Wi-Fi in the subway stations. The ISP submitted an initial proposal on November 2, 2015. InSite reviewed the proposal and clarified some key points. InSite subsequently asked the ISP to revise their proposal accordingly. A schedule for Wi-Fi in the subway stations will be presented once a tentative agreement has been reached.
- Phase 2 Cellular (7th/Flower to Vermont/Sunset and to Wilshire/Western) infrastructure is slated for completion six months after Phase I, projected to be Q3 of 2016.
- Phase 3 / Phase 4 Cellular (Hollywood/Western to North Hollywood, Gold Line Soto/Mariachi and Expo 1 underground portion) infrastructure is slated for completion one year after completion of Phase 2, projected to be Q3 of 2017.

NEXT STEPS

Address all potential barriers that may be hindering progress on the project. In particular InSite has expressed a desire for increased track access time in order to accelerate the project timeline. We are working with InSite and our Operations group to determine what might be possible along these lines.

Convene follow up meetings as needed with stakeholders of this project with the imperative of meeting or reducing the current schedule.

Attachments:

A: May 2015 Board Box: Metro Rail System Cellular and Wi-Fi Implementation


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May 28, 2015

TO: BOARD OF DIRECTORS
THROUGH: PHILLIP A. WASHINGTON
 CHIEF EXECUTIVE OFFICER
FROM: BOB HOLLAND
 INTERIM CHIEF OPERATIONS OFFICER
 DAVE EDWARDS
 CHIEF INFORMATION OFFICER
SUBJECT: METRO RAIL SYSTEM CELLULAR AND WI-FI
 IMPLEMENTATION

*DAW: We will work hard
 to accelerate this new
 implementation date.*

ISSUE

In December 2014, Metro staff updated the Board of Directors on the estimated schedule for the three phases of the projects. The schedule provided in December 2014 was dependent upon timely negotiations with cellular and Wi-Fi providers and anticipated a delivery date of May 2015. Given the current state of progress on both the cellular and Wi-Fi negotiations, Metro and InSite Wireless cannot maintain the timelines anticipated. The new timeline anticipates a September 2015 substantial completion date (Attachment A).

DISCUSSION

In February 2013, the Board awarded a 20-year contract with InSite Wireless to provide cellular coverage in the Metro underground rail system tunnels and stations, and for Wi-Fi in the Metro underground rail stations (Attachment B). Phase 1 of this project will provide Wi-Fi at Metro Rail Red Line stations, and cellular service at stations and in the tunnels, between Union Station and 7th Street/Metro Center.

Technical work and installation has progressed nearly as planned; however protracted negotiations respectively between InSite Wireless and cellular carriers, and InSite Wireless and internet service providers (ISP's) are largely responsible for the need to modify the implementation schedule. Thus far, three of the four major carriers have responded to initial proposals for cellular service and stalled talks with a major Wi-Fi provider are now back in progress.

Additionally, a license agreement for a base station hotel, or communications facility, must be executed before necessary equipment can be installed to complete the distributed antenna system (DAS) needed for cellular service in the tunnels. An

agreement has been drafted, redlined by both sides, and is under review by InSite Wireless.

The new proposed schedule for Phase 1 of the cellular infrastructure forecasts substantial completion by September 2015. An in-service date will follow thereafter based on the timeliness of executing agreements with cellular providers and ISPs.

Cellular Implementation at Massachusetts Bay Transportation Authority

Signing-up carriers can be a lengthy process as the commercial companies involved try to maximize their profits and minimize risk. Massachusetts Bay Transportation Authority (MBTA) worked with InSite Wireless to provide cellular on their rail system. The contract was awarded in May 2005. The first phase included eight stations with construction completing in January 2007. However, the system was launched with three carriers about 11 months later in December 2007. Based on the implementation schedule in Boston, Metro can expect a lag time between the completion of the InSite Wireless equipment installation and the activation of cellular service.

NEXT STEPS

The schedule continues to be dependent on securing tunnel access, and permits for the base station hotel, as discussed above; and InSite Wireless securing contracts with the carriers and the ISPs. Metro is closely monitoring the progress of the project. Operations and ITS staff receive weekly updates from InSite Wireless on the status of carrier and ISP negotiations. Biweekly project and negotiation updates are shared with internal stakeholders; including Operations, ITS, Procurement, Transit Security, Office of the CEO, and Government Relations.

Attachments:

- A: Metro Rail System Cellular and Wi-Fi Project Milestones
- B: February 2013 Board Report: Underground Cell Phone and Data Service Provider
- C: December 2014 Board Box: Metro Rail System Cellular and Wi-Fi Implementation

Metro Rail System Cellular and Wi-Fi Milestones

The schedules provided below are dependent upon timely negotiations with cellular and Wi-Fi providers.

Cellular Service

- **Schedule – Phase 1**
Based upon current status of the project, staff anticipates the following schedule and responsibilities for Phase 1 cellular service.

Cellular in Metro Red Line Tunnels				
Phase 1 – Union Station – 7 th /Metro				
Responsible Party	Base Station Hotel Real Estate License Agreement	Base Station Hotel Construction Completion (exclusive of carrier equipment)	Distributed Antenna System (DAS) Infrastructure	Lead Time between Finalized Contract(s) and In-Service Date
InSite Wireless	May 2015	September 2015	September 2015	
Metro				
Cellular Carrier				Six-months*

* Each wireless carrier must negotiate their own contract with InSite.

- **Schedule – Phase 2 and 3**
Following the completion of phase one, work will begin on phase two of the cellular project.

Cellular Phases 2, 3, Gold and Expo Lines		
Phase 2 - 7th/Flower to Sunset/Vermont and to Wilshire/Western	Phase 3 - Hollywood/Western to North Hollywood	Phase 4 - Soto/Mariachi (Gold Line) and Expo I underground section
Completion within 10 months after Phase 1	Completion within 6 months after Phase 2	Completion within 6 months after Phase 3

Wi-Fi Service

- **Wi-Fi Schedule**

Based upon current information, staff anticipates the following lead time for Phase 1 Wi-Fi service. This lead time includes design, review and approval by Metro Engineering, installation, and testing.

Wi-Fi in Metro Red Line Stations	
Phase 1 -Union Station to 7th/Metro	Lead Time between Finalized Negotiation and In-Service Date
InSite Wireless	
Metro	
Internet Service Provider	8 months