



**April 24, 2019**

**To:** Finance and Administration Committee

**From:** Darrell E. Johnson, Chief Executive Officer

Janet Sutter, Executive Director  
Internal Audit

**Subject:** Mobile Ticketing Operations, Internal Audit Report No. 19-505

### **Overview**

The Internal Audit Department has completed an audit of mobile ticketing operations. Based on the audit, controls over revenue collection, recording, reconciliation, and invoice review are adequate, and the contractor complies with contract terms. The Internal Audit Department offered two recommendations to improve system access controls and to develop written policies and procedures.

### **Recommendation**

Direct staff to implement two recommendations provided in Mobile Ticketing Operations, Internal Audit Report No. 19-505.

### **Background**

In an effort to modernize the fare collection system, the Orange County Transportation Authority (OCTA) contracted with Moovel North America, LLC (moovel), in September 2015, for a mobile ticketing solution. By implementing a mobile ticketing solution, OCTA hoped to simplify fare collection, increase ease of use for riders, foster regional transit fare integration, reduce cash handling costs, and unify the riding experience.

Full fleet rollout of mobile ticketing occurred in December 2016, and deployment of on-board ticket readers provided by Init Innovations in Transportation, Inc., occurred in February 2017.

The mobile ticketing application (app) can be downloaded on both iOS and android devices. The app is hosted and maintained by moovel in their

Transaction and Operations Management System (System). A user can select ticket options and quantities and add them to their cart for checkout. Upon checkout, the app will be connected to Braintree, a subsidiary of Paypal, Incorporated (Paypal), for payment with either a credit card, Paypal, Google Wallet, or Apple Pay. Once the transaction is complete, a confirmation e-mail is sent to the user and the ticket is available in the app.

To board, the rider selects a ticket from within the app, and a barcode is generated that will continuously refresh every 10 seconds to prevent duplicate usage. The on-board reader will read the barcode, validate the ticket, and instantaneously collect data, such as fare type, time of boarding, and boarding location. This information is stored in OCTA's data warehouse for ridership performance analysis and reporting.

### ***Discussion***

The Internal Audit Department (Internal Audit) identified several employees of OCTA's customer service center provider, Alta Resources, who had terminated employment but still had access to the System. Internal Audit recommended controls be implemented to ensure timely removal of system access upon employee termination. Management responded that controls will be implemented, and periodic review of system users will be performed going forward.

Internal Audit also noted that written policies and procedures have not been developed. Since mobile ticketing was first implemented in mid-2016, staff has worked to refine activities to effectively address revenue reconciliation, chargeback oversight, invoice review, etc., but has not yet documented these activities. Internal Audit recommended management document policies and procedures. Management agreed and indicated that policies and procedures will be developed to ensure proper identification and assignment of responsibilities, and continuity of operations in the absence of key staff.

### ***Summary***

Internal Audit has completed an audit of mobile ticketing operations and has offered two recommendations for improvement.

**Attachment**

- A. Mobile Ticketing Operations, Internal Audit Report No. 19-505

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